

PE Water Pipe and Fittings





CHINA LESSO GROUP HOLDINGS LIMITED

China Lesso Group Holdings Limited (Stock Name: China Lesso, Stock Code: 02128.HK) is a large industrial group of home furnishings and building materials in China. China Lesso's business portfolio spans plastic piping, building materials and home furnishings, environmental protection, supply-chain service platforms and the photovoltaic sector. It offers products such as pipes, photovoltaics, plumbing and sanitary ware, integral kitchen materials, integral doors and windows, aluminum formwork and smart scaffolds, water purifiers, water-proofing materials and sealants, fire-fighting equipment, valves, cables, lighting, hygiene materials, items for environmental protection, agricultural facilities, and oceanic aquaculture cages. Its sales revenue has reached RMB 30.767 billion in 2022.

With the rapid development of internationalization and globalization, China Lesso boasts more than 30 advanced production bases distributed in 18 provinces across China, and in some foreign countries. China Lesso remains committed to improving its strategic layout, broadening its sales network and expanding the market. This is how it provides products and services for customers in a timely and efficient way.

China Lesso has established its R&D center with more than 1,000 scientific researchers. The Group now possesses twenty-eight national high-tech enterprises, one national accredited enterprise technology center, two post-doctoral workstations, five China national accredited laboratories authorized by CNAS, one key enterprise laboratory of plastics molding and processing technology in Guangdong Province, and one union of Technical Innovation of Plastic Pipe Industry in Guangdong Province.

China Lesso owns over 2200 patents (some of them are pending). Some of Lesso's scientific achievements are included in National Torch Plan Projects, National Key New Product, Scientific Achievements Promotion Projects in National Construction Industry and Government Green Procurement List. The Group has been awarded many honorary titles and prizes, such as Champion Manufacturer, China Construction Independent Science Innovation Superior Enterprise, Intellectual Property Right Preponderant Enterprise, Industrialization Demonstration Base, Outstanding Patent Owner in China, Guangdong Provincial Government Quality Prize, and the First Prize of Scientific Technological Progress in Guangdong Province, and the First Prize of Scientific Technological Progress of China Light Industry Association.

As a domestic manufacturer of extensive home furnishings and building materials, China Lesso provides over 10,000 varieties of products with all specifications. Its products are being widely used in many areas, including home decoration, civil construction, municipal water supply, drainage, power supply and telecommunications, gas supply, fire-fighting, environmental protection, agriculture, oceanic aquaculture, and photovoltaic power generation.

True to its slogan of "Envisioning the Better, Building the Future", China Lesso will honor its promise of creating a healthy, enjoyable, and sustainable environment. The Group remains committed to improvements in urban construction to create better places to live. With concerted efforts from various sectors, Lesso will fully play its role in building green, livable, and efficient cities so that people could enjoy health and happiness anytime and anywhere in their city life.



LESSO Research Institute & Testing Center



LESSO College



Training Apartment



LESSO Headquarter

FEEL THE BETTER LIFE

Pipes, Building Materials and Home Furnishings,
Environmental Protection, Channels and Services



Contents

PE Water Pipe and Fittings

PE Water Pipe	01-02
PE 80 Pipe	03
PE 100 Pipe	04-05
Plastic-Steel Mesh Skeleton-Plastic (PE)	
Composite Pipe for Water Supply	06
Socket Fusion Joint Fittings	07-18
Butt Fusion Joint Fittings	19-29
Electro Fusion Fittings	30-37
Fabricated Fittings	38-42
Tools	43-44
Characteristic	45
Installations: Socket Fusion Joint	46
Installations: Butt Fusion Joint	47-48
Installations: Electro Fusion Joint	49
Installations: Transition Joint	50
Installations: Trenchless Technology	51
Certifications	52-55

Illustration of commercial mark included
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■ Product Overview

- ⊗ **Material:** PE 80 or PE 100
- ⊗ **Pressure Rating:** 0.4MPa, 0.6MPa, 0.8MPa, 1.0MPa, 1.25MPa, 1.6MPa
- ⊗ **Size:** full 20mm through 1600mm availability
- ⊗ **Standard:** ISO 4427-2, EN 12201-2, GB/T 13663-2,
- ⊗ **Colors:** BS6920, AS/NZS 4130, BS EN12201-2
 - Blue
 - Black with blue stripes
 - Other colors are also available upon request
- ⊗ **Form Supplied:**
 - 5.8 meters straight length (all size)
 - 50 or 100 meters coil length (d_n20~d_n63)
 - Other forms are also available upon request



■ Advantages

- ⊗ **Non-toxic:** no heavy metal additives, would not be covered with dirt or contaminated by bacterium. Sanitary. No Secondary pollution.
- ⊗ **Corrosion Resistance:** unaffected by chemical matters and electron chemical matters which cause corrosion in metals.
- ⊗ **High flow capacity:** smooth interior walls and low abrasion resistance result low flow resistance and high flow capacity.
- ⊗ **Excellent Flexibility:** can be supplied in coil form, fewer fittings required and lower cost in installation.
- ⊗ **High impact and breakage resistance.**
- ⊗ **Excellent UV resistance.**
- ⊗ **Differential Settlement Resistance:** low requirements for foundation treatment.
- ⊗ **Easy Installation:** light weight, easy to transport and handle friendly.
- ⊗ **Long Service Life:** PE water pipe can work for more than 50 years under proper use.
- ⊗ **Use trenchless technology.**
- ⊗ **Various Joint Availability:** socket fusion joint, butt fusion joint, electro fusion joint and transition joint.

■ Applications

- ⊗ Municipal water supply
- ⊗ Commercial & Residential water supply
- ⊗ Industrial liquids transportation
- ⊗ Sewage treatment



The damage percentages in the water supply lines at Kobe/Japan earthquake in 1995.

Pipe Type	Percentage of damage Piece/km
Ductile Cast Iron Pipe	0.488
Cast Iron Pipe	1.508
PVC Pipe	1.430
Steel Pipe	0.437
Asbestos Steel Pipe	1.782
PE Pipe	0

■ Physical Properties

Properties		Typical Value
Extension Rate at Break, %		≥350
Longitudinal Reversion, % (110°C)		≤3
Oxidation Induction Time, min (210°C)		≥20
Hydraulic Pressure Test	20°C, 100h	No Failure
	PE80 10.0MPa	
	PE100 12.0MPa	
	80°C, 165h	No Failure
	PE80 4.5MPa	
	PE100 5.4MPa	
	80°C, 1000h	No Failure
	PE80 4.0MPa	
	PE100 5.0MPa	

Characteristic	Requirements	Test parameters		Test method
		Parameter	Value	
Compound density	≥930kg/m ³	Test temperature	23°C	ISO 1183-1 or ISO 1183-2
		Number of test pieces	Shall conform to ISO 1183-1 or ISO 1183-2	
Carbon black content	(2.0 to 2.5)%(by mass)	Shall conform to ISO 6964		ISO 6964
Carbon black dispersion	Grade≤3 Rating of dispersion A1,A2,A3,or B	Preparation of test piece	Free	ISO 18553
		Number of test pieces	Shall conform to ISO 18553	
Volatile content	≤350 mg/kg	Number of test pieces	1	EN 12099
Water content	≤300 mg/kg (Equivalent to <0.03% by mass)	Number of test pieces	1	ISO 15512
Oxidation induction time (Thermal stability)	≥20 min	Test temperature	210°C	ISO 11357-6
		Number of test pieces	3	
		Test atmosphere	Oxygen	
Melt mass-flow rate (MFR) for PE80 and PE100	0.20≤MFR≤1.40 g/10 min Maximum deviation of the nominated value	Loading mass	5kg	ISO 1133-1
		Test temperature	190°C	
		Time	10 min	
		Number of test pieces	Shall conform to ISO 1133-1	

SDR 33 (PN 0.4)

SAP No. (black/6M)	d _n (mm)	e _n (mm)
8010030001	160	4.9
	180	5.5
8010030002	200	6.2
8010033261	225	6.9
8010030954	250	7.7
	280	8.6
8010030005	315	9.7
8010030007	355	10.9
8010030008	400	12.3
8010030959	450	13.8
8010030961	500	15.3
8010030962	560	17.2
8010030011	630	19.3
	710	21.8
	800	24.5

SDR 21 (PN 0.6)

SAP No. (black/6M)	d _n (mm)	e _n (mm)
8010032965	90	4.3
8010030967	110	5.3
	125	6.0
8010030731	160	7.7
	180	8.6
	200	9.6
	225	10.8
	250	11.9
	280	13.4
8010030736	315	15.0
	355	16.9
8010030730	400	19.1
	450	21.5
8010030983	500	23.9
	560	26.7
	630	30.0
	710	33.9
	800	38.1

SDR 17 (PN 0.8)

SAP No. (black/6M)	d _n (mm)	e _n (mm)
8010030019	75	4.5
8010030020	90	5.4
8010030014	110	6.6
8010030016	125	7.4
8010030993	160	9.5
8010031683	180	10.7
8010031527	200	11.9
8010031545	225	13.4
8010031682	250	14.8
8010031681	280	16.6
	315	18.7
8010031776	355	21.1
8010031546	400	23.7
8010031006	450	26.7
	500	29.7
	560	33.2
	630	37.4
	710	42.1
	800	47.4

SDR 13.6 (PN 1.0)

SAP No. (black/6M)	d _n (mm)	e _n (mm)
8010030798	63	4.7
8010030792	75	5.6
8010031041	90	6.7
8010031015	110	8.1
8010030025	125	9.2
8010031018	160	11.8
	180	13.3
8010031020	200	14.7
8010031022	225	16.6
8010031024	250	18.4
	280	20.6
8010031027	315	23.2
8010031029	355	26.1
	400	29.4
	450	33.1
	500	36.8
	560	41.2
	630	46.3
	710	52.2
	800	58.8

SDR 11 (PN 1.25)

SAP No. (black/6M)	d _n (mm)	e _n (mm)
8010032970	25	2.3
8010030799	32	3.0
8010030800	40	3.7
8010030039	50	4.6
8010032975	63	5.8
8010032977	75	6.8
8010032979	90	8.2
8010030813	110	10.0
8010031688	125	11.4
	140	12.7
8010030756	160	14.6
	180	16.4
8010031467	200	18.2
	225	20.5
	250	22.7
	280	25.4
	315	28.6
8010032129	355	32.2
8010031460	400	36.3
	450	40.9
	500	45.4
	560	50.8
	630	57.2

Coil Pipe**SDR 13.6 (PN 1.0)**

SAP No. (blue/50M)	d _n (mm)	e _n (mm)	Length (m/roll)
8010030584	63	4.7	50

SDR 11 (PN 1.25)

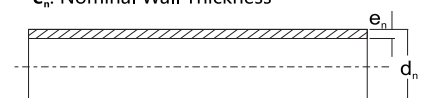
SAP No. (blue/50M)	d _n (mm)	e _n (mm)	Length (m/roll)
8010033078	25	2.3	50/100
8010030597	32	3.0	50/100
8010030599	40	3.7	50/100
8010030601	50	4.6	50
8010030603	63	5.8	50

SDR: Standard Dimension

PN: Rate

d_n: Nominal Outside Diameter

Nominal Pressure (unit: MPa)

e_n: Nominal Wall Thickness

SDR 26 (PN 0.6)

SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
8010030738	110	4.2
8010031423	125	4.8
8010030794	160	6.2
	180	6.9
8010030783	200	7.7
8010030087	225	8.6
8010030091	250	9.6
	280	10.7
8010030101	315	12.1
	355	13.6
8010031970	400	15.3
8010030114	450	17.2
	500	19.1
	560	21.4
8010032009	630	24.1
	710	27.2
	800	30.6
	900	34.4
	1000	38.2
	1200	46.3
	1400	53.9
	1600	61.6

SDR 17 (PN1.0)

SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
8010031422	75	4.5
8010030324	90	5.4
8010030225	110	6.6
8010031146	125	7.4
8010030241	160	9.5
8010030825	180	10.7
8010030249	200	11.9
8010031148	225	13.4
8010030261	250	14.8
8010031149	280	16.6
8010031151	315	18.7
8010031153	355	21.1
8010030279	400	23.7
8010031156	450	26.7
8010030294	500	29.7
8010031158	560	33.2
8010030308	630	37.4
	710	42.1
8010030320	800	47.4
	900	53.3
	1000	59.3

SDR 21 (PN 0.8)

SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
8010031920	90	4.3
8010031919	110	5.3
8010033031	125	6.0
8010033030	140	6.7
8010033029	160	7.7
	180	8.6
8010031111	200	9.6
	225	10.8
	250	11.9
8010031113	280	13.4
	315	15.0
	355	16.9
	400	19.1
	450	21.5
8010031118	500	23.9
	560	26.7
	630	30.0
	710	33.9
	800	38.1
	900	42.9
	1000	47.7
	1200	57.2
	1400	66.8

SDR 13.6 (PN 1.25)

SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
8010031718	50	3.7
8010031597	63	4.7
8010031673	75	5.6
8010011478	90	6.7
8010011479	110	8.1
8010032001	125	9.2
8010031455	160	11.8
8010032002	180	13.3
8010031433	200	14.7
8010031999	225	16.6
8010032013	250	18.4
	280	20.6
8010032000	315	23.2
8010033010	355	26.1
8010032012	400	29.4
8010032119	450	33.1
8010032117	500	36.8
8010032118	630	46.3
8010033143	★ 710	52.2
	800	58.8

The product mold marked as "★" on this page has not been improved, please note.

SDR 11 (PN 1.6)

SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
8010011477	20	2.3
8010030746	25	2.3
8010030477	32	3.0
8010030484	40	3.7
8010030491	50	4.6
8010030500	63	5.8
8010030765	75	6.8
8010030506	90	8.2
8010030428	110	10.0
8010030433	125	11.4
8010030438	160	14.6
8010030444	180	16.4
8010031445	200	18.2
8010030458	225	20.5
8010031217	250	22.7
8010031218	280	25.4
8010030473	315	28.6
8010031444	355	32.2
8010031443	400	36.3
8010030488	450	40.9
8010030495	500	45.4
8010031424	560	50.8
8010032132	630	57.2
	710	64.5

Coil Pipe**SDR 13.6 (PN 1.25)**

SAP No. (blue/50M)	d _n (mm)	e _n (mm)	Length (m/roll)
8010030604	63	4.7	50

Coil Pipe**SDR 11 (PN 1.6)**

SAP No. (black/50M)	d _n (mm)	e _n (mm)	Length (m/roll)
8010031806	20	2.3	50/100
8010030754	25	2.3	50/100
8010030615	32	3.0	50/100
8010031543	40	3.7	50/100
8010030619	50	4.6	50
8010030620	63	5.8	50

■ Product Overview

Material: PE, steel mesh skeleton

Pressure Rating: 1.0MPa, 1.6MPa, 2.0MPa, 2.5MPa

Standard: CJ/T189

Size: full 50mm through 500mm availability

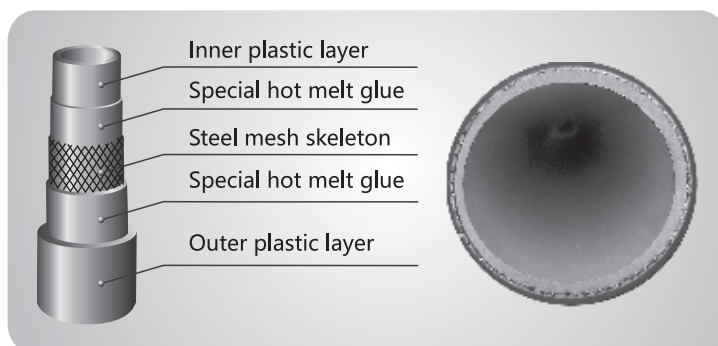
Colors: Black (all size)

Other colors are also available upon request

Form Supplied:

6 meters or 8 meters straight length(all size)

Others forms are also available upon request

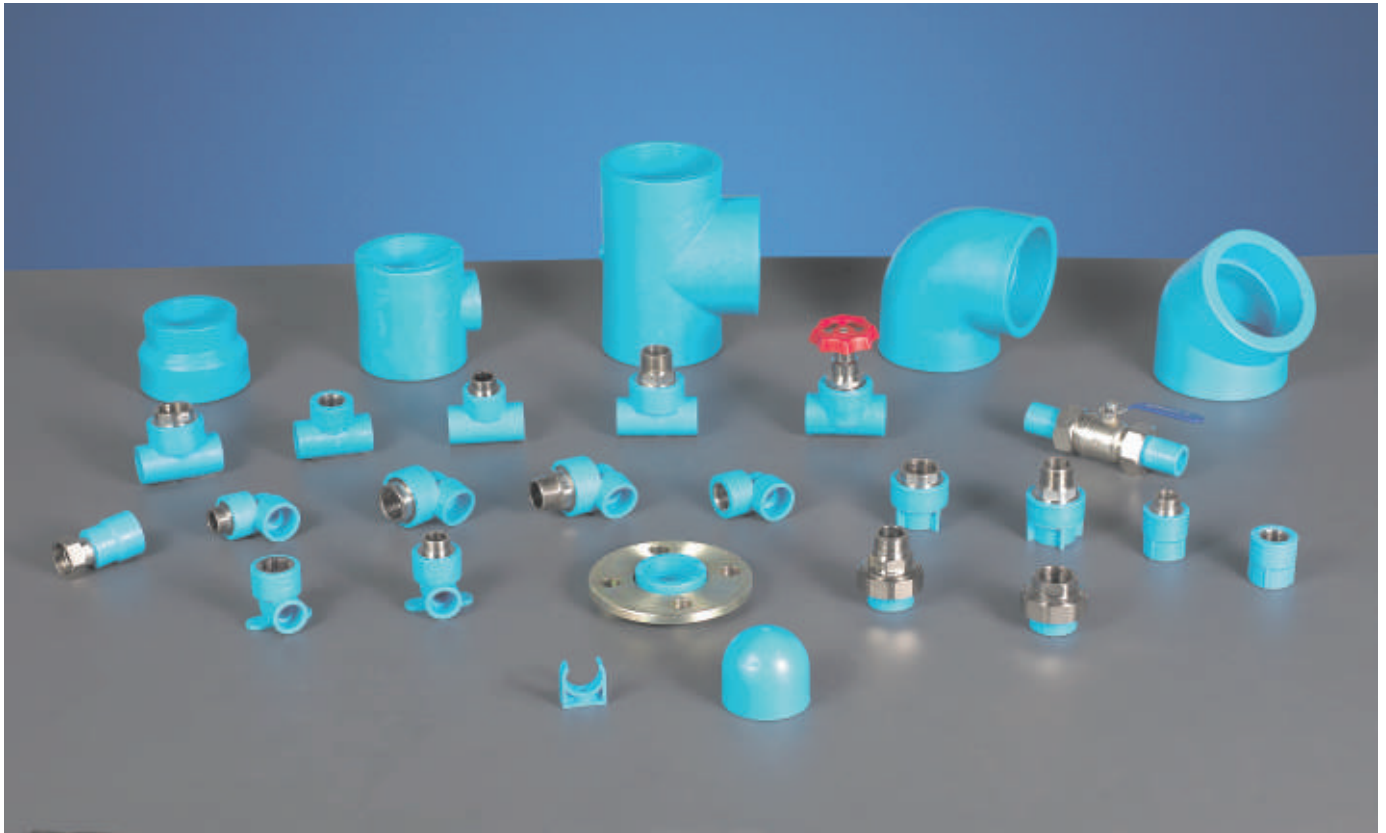


■ Advantages

- ◎ Higher strength resistance and creep resistance.
- ◎ Excellent stiffness, impact resistance. Low linear expansion coefficient.
- ◎ Smooth inner wall, won't covered with dirt. Low flow resistance, high flow capacity.
- ◎ Both the inner and outer wall are made of plastic, lead the pipe and fittings owns good corrosion resistance.
- ◎ Light weight, easy to transport.
- ◎ Use electro-fusion joint, no leakage in the joint, fast and easy installation.
- ◎ The product is composited with steel wire and plastic, overcome the fast stress crack of plastic pipe.
- ◎ Good abrasion resistance. The product can work for more than 50 years under normal use.

Plastic-Steel Mesh Skeleton-Plastic (PE) Composite Pipe for Water Supply

PN1.0			PN1.6			PN2.0		
SAP No. (black/5.8M)	d _n (mm)	e _n (mm)	SAP No. (black/5.8M)	d _n (mm)	e _n (mm)	SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
8010120317	110	6.0	8010120226	50	5.0	8010120081	110	7.5
8010120316	160	6.5	8010120229	63	5.5	8010120082	160	9.5
8010120380	200	7.0	8010120230	75	6.0	8010120080	200	10.5
	225	8.0	8010120231	90	6.5	8010120282	225	10.5
8010120379	250	10.5	8010120033	110	7.0			
8010120378	315	12.0	8010120328	160	9.0			
8010120377	355	12.5	8010120042	200	9.5			
	400	13.0		225	8.0			
8010120376	500	16.0		250	12.0			
				315	13.0			
				355	14.0			
				400	15.0			
			8010120389	500	18.0			



■ Features

Material: PE 100

Size: full 20mm through 110mm availability

Pressure Rating: 1.6MPa, or other nominal pressures available upon request

Standard: ISO 4427-3, EN 12201-3, BS EN 12201-3 BS 6920

Color: blue (all size)

black (d_n110)

other colors are also available upon request

Joint: joining pipe and socket fusion joint fittings by socket fusion joint

■ Advantages

Non-toxic: no heavy metal additives, would not be covered with dirt or contaminated by bacterium

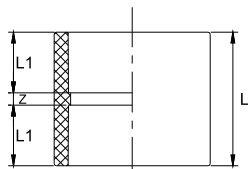
Corrosion Resistance: resist chemical matters and electron chemical corrosion

Low Installation Costs: light weight and ease of installation can reduce installation costs

High Flow Capacity: smooth interior walls result in low pressure loss and high volume

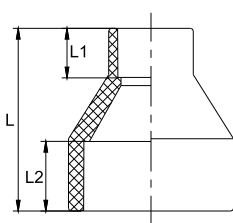
Longevity: more than 50 years under proper use

Coupling (Soc×Soc)



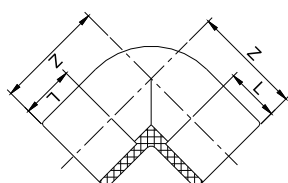
SAP Number (blue)	Size (mm)	L1	L	Z	PCS/CTN
8010041345	20	16.5	37	4	870
8010041346	25	18	40	4	560
8010041347	32	20.5	45	4	340
8010041348	40	22.5	50	5	240
8010041349	50	25.5	56	5	260
8010041350	63	30	65	5	160
8010041351	75	33	72	6	100
8010041352	90	37	78	4	50
8010041344	110	42	89	5	36

Reducer (Soc×Soc)



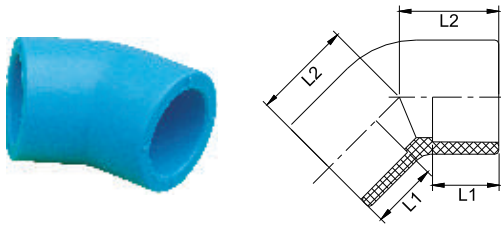
SAP Number (blue)	Size (mm)	L1	L2	L	PCS/CTN
8010040245	25x20	16.5	18	45	600
8010040246	32x20	16.5	20.5	56	340
8010040247	32x25	18	20.5	52	300
8010040248	40x20	16.5	22.5	63	336
8010040249	40x25	18	22.5	61	240
8010040250	40x32	20.5	22.5	54	240
8010040251	50x20	16.5	25.5	67	160
8010040252	50x25	18	25.5	67	245
8010040253	50x32	20.5	25.5	67	160
8010040254	50x40	22.5	25.5	62	120
8010040255	63x25	18	29.5	82	160
8010040256	63x32	20.5	29.5	84	150
8010040257	63x40	22.5	29.5	82	150
8010040258	63x50	25.5	29.5	71	135
8010040259	75x32	20.5	33	65	135
8010040260	75x40	22.5	33	67	140
8010040261	75x50	25.5	33	75	100
8010040262	75x63	29.5	33	80	90
8010040263	90x40	22.5	37	75	90
8010040264	90x50	25.5	37	75	120
8010040265	90x63	29.5	37	100	72
8010040266	90x75	33	37	86	55
8010040244	110x63	29.5	42	112	50

90°Elbow (Soc×Soc)



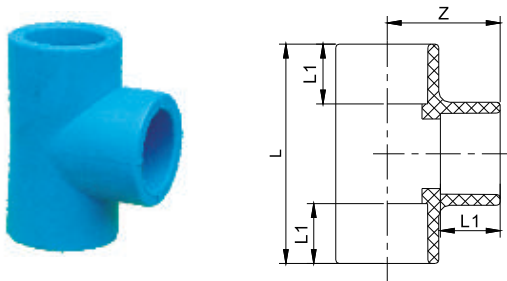
SAP Number (blue)	Size (mm)	L	Z	PCS/CTN
8010040180	20	16.5	33	500
8010040181	25	18	36.5	320
8010040182	32	20.5	41.5	200
8010040183	40	22.5	48	100
8010040184	50	25.5	61	120
8010040185	63	29.5	69	60
8010040186	75	33	77.5	40
8010040187	90	37	89	25
8010041507	110	42	105.5	15

45°Elbow (Soc×Soc)



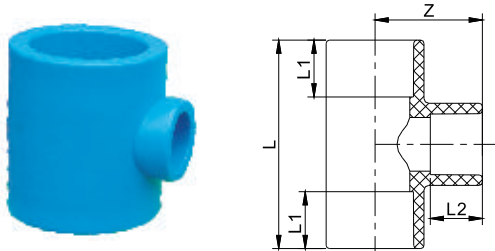
SAP Number (blue)	Size (mm)	L1	L2	PCS/CTN
8010040164	20	16.5	24	640
8010040165	25	18	27	380
8010040166	32	20.5	32	240
8010040167	40	22.5	35	300
8010040168	50	25.5	41	140
8010040169	63	29.5	48	80
8010040170	75	33	53.2	50
8010040171	90	37	59.5	30
8010040163	110	42	69	20

Tee (Soc×Soc)



SAP Number (blue)	Size (mm)	L1	L	Z	PCS/CTN
8010040105	20	16.5	64	32	320
8010040106	25	18	72	36	216
8010040107	32	20.5	85	42.5	140
8010040108	40	22.5	94	47	90
8010040109	50	25.5	112	56	80
8010040110	63	29.5	140	70	50
8010040111	75	33	154	77	30
8010040112	90	37	178	89	20
8010041506	110	42	214	107	12

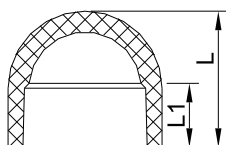
Reducing Tee (Soc×Soc)



SAP Number (blue)	Size (mm)	L1	L2	L	Z	PCS/CTN
8010040207	25x20	18	16.5	66	34	280
8010040208	32x20	20.5	16.5	72	38	180
8010040209	32x25	20.5	18	77	40	160
8010040210	40x20	22.5	16.5	78	42	116
8010040211	40x25	22.5	18	83	44	96
8010040212	40x32	22.5	20.5	90	46	96
8010040213	50x20	25.5	16.5	86	47	160
8010040214	50x25	25.5	18	91	49	150
8010040215	50x32	25.5	20.5	98	51	120
8010040216	50x40	25.5	22.5	104	53	100
8010040217	63x25	29.5	18	101	57	80
8010040218	63x32	29.5	20.5	108	59	60
8010040219	63x40	29.5	22.5	112	61	60
8010040220	63x50	29.5	25.5	122	64	60
8010040221	75x32	33	20.5	100	64	60
8010040222	75x40	33	22.5	113	63.5	54
8010040223	75x50	33	25.5	122.5	64.5	60
8010040224	75x63	33	29.5	145	75	36
8010040225	90x40	37	22.5	120	72.25	34
8010040226	★ 90x50	37	25.5	132.3	80	28
8010040227	90x63	37	29.5	148	84	28
8010040228	90x75	37	33	164	88	25

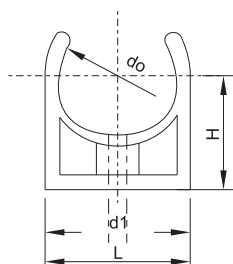
The product mold marked as "★" on this page has not been improved, please note.

Cap(Soc)

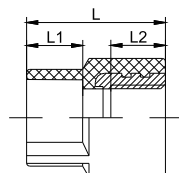


SAP Number (blue)	Size (mm)	L1	L	PCS/CTN
8010040033	20	16.5	30	1200
8010040034	25	18	34	900
8010040035	32	20.5	43	450
8010040036	40	22.5	54	240
8010040037	50	25.5	58	140
8010040038	63	29.5	68	150
8010042069	75	33	80	60
8010040039	90	37	95	80
	110	42	112	36

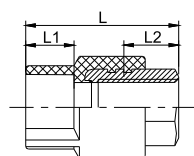
Pipe Clamp



SAP Number (blue)	Size (mm)	D	L	do	d1	H	PCS/CTN
8010040013	20	20	27.4	19.6	5	22	1080
8010040014	25	25	32	24.6	5	24.5	1050
8010040015	32	32	39	31.5	5	28.5	960
8010041376	40	40	47.5	38.5	5	32	600
8010043102	50	50	57.5	48.5	5	37	450

Female Thread Adapter
(Soc×Fipt with Metal Insert)

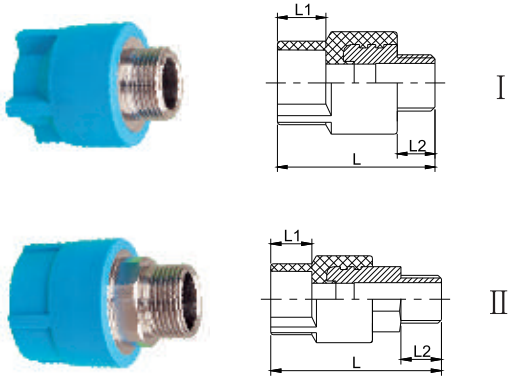
I



II

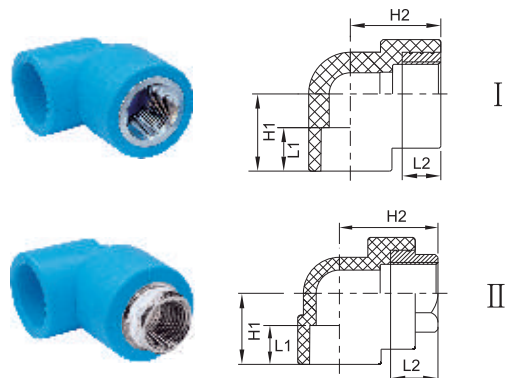
SAP Number (blue)	Size (mm x inch)	L1	L2	L	PCS/CTN
8010040086	20x1/2"	16.5	17.5	42	360
8010040087	20x3/4"	16.5	17	42	240
8010040088	25x1/2"	18	17.5	44.5	300
8010040089	25x3/4"	18	17	45	180
8010040091	32x1/2"	20.5	17.5	47	180
8010040092	32x3/4"	20.5	17	47	210
8010040090	32x1"	20.5	22	59	96
8010040093	40x1"	22.5	22	60	72
8010040094	40x1 1/4"	22.5	24	64	72
8010040096	50x1 1/4"	25.5	24	66	48
8010040095	50x1 1/2"	25.5	23	68.5	36
8010040097	63x2"	29.5	25	77	36
8010040098	75x2"	33	25	80.5	36

Male Thread Adapter (Soc×Mipt with Metal Insert)



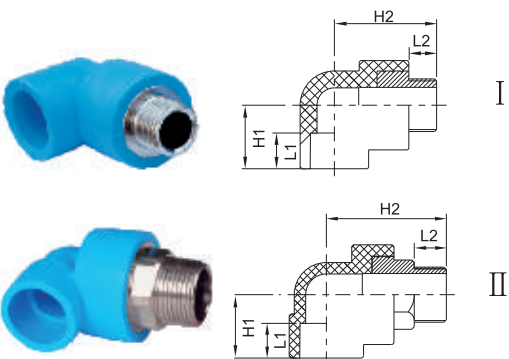
SAP Number (blue)	Size (mm x inch)	L1	L2	L	PCS/CTN
8010040146	20x1/2"	16.5	14	56	240
8010040147	20x3/4"	16.5	14	56	180
8010040148	25x1/2"	18	14	58.5	210
8010040149	25x3/4"	18	14	59	180
8010040151	32x1/2"	20.5	14	61	180
8010040152	32x3/4"	20.5	14	61	180
8010040150	32x1"	20.5	19	78	96
8010040153	40x1"	22.5	19	79	72
8010040154	40x1 1/4"	22.5	21	85	48
8010040156	50x1 1/4"	25.5	21	87	48
8010040155	50x1 1/2"	25.5	21	89.5	48
8010040157	63x2"	29.5	24	102	36
8010040158	75x2"	33	24	105.5	36

Female Thread Elbow (Soc×Fipt with Metal Insert)



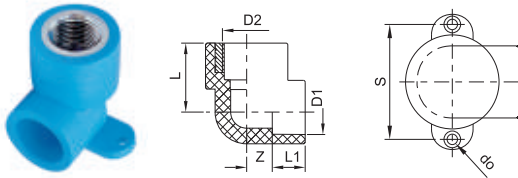
SAP Number (blue)	Size (mm x inch)	L1	L2	H1	H2	PCS/CTN
8010040067	20x1/2"	16.5	17.5	30	36	240
8010040068	20x3/4"	16.5	17	33	36	210
8010040069	25x1/2"	18	17.5	33	38	210
8010040070	25x3/4"	18	16	34.4	37.4	180
8010040072	32x1/2"	20.5	17.5	35	42	180
8010040073	32x3/4"	20.5	17.5	38	42	150
8010040071	32x1"	20.5	22	40.5	53	72
8010040074	40x1 1/4"	22.5	24	51	61.2	48
8010042081	50x1 1/2"	25.5	24	57	66.5	36
8010041401	63x2"	29.5	25	67.5	78.5	18
8010042082	75x2 1/2"	33	30	79	89.5	

Male Thread Elbow (Soc×Mipt with Metal Insert)



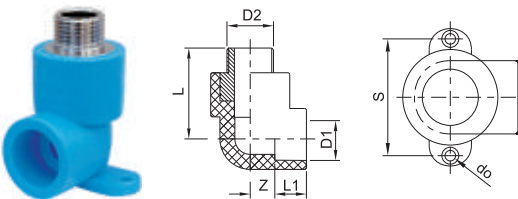
SAP Number (blue)	Size (mm x inch)	L1	L2	H1	H2	PCS/CTN
8010040126	20x1/2"	16.5	14	30	50	240
8010040127	20x3/4"	16.5	14	33	50	180
8010040128	25x1/2"	18	14	33	52	210
8010040129	25x3/4"	18	14	34.4	51.4	150
8010040131	32x1/2"	20.5	14	35	56	180
8010040132	32x3/4"	20.5	14	38	56	120
8010040130	32x1"	20.5	19	40.5	72	72
8010041402	40x1 1/4"	22.5	21	49.5	82.5	48
8010042093	50x1 1/2"	25.5	21	55.5	87.5	
8010041629	63x2"	29.5	24	62.5	103	24
8010041566	75x2 1/2"	33	28	74	118	

Female Thread Elbow with Base
(Soc×Fipt with Metal Insert)



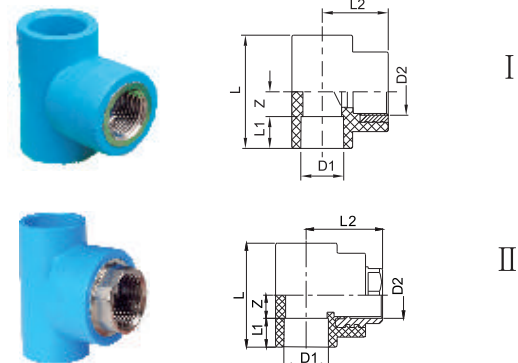
SAP Number (blue)	Size (mm×inch)	D1	D2	L	S	L1	do	PCS/CTN
8010040075	20x1/2"	20	1/2"	36	49.5	16.5	5	210
8010040076	20x3/4"	20	3/4"	36	53.5	16.5	5	180
8010040077	25x1/2"	25	1/2"	38	49.5	18	5	180
8010040078	25x3/4"	25	3/4"	37.4	53.5	18	5	120

Male Thread Elbow with Base
(Soc×Mipt with Metal Insert)



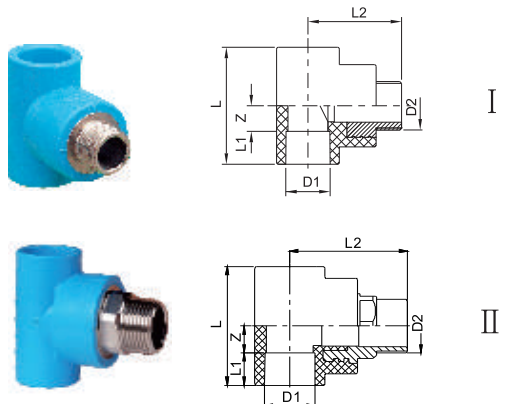
SAP Number (blue)	Size (mm×inch)	D1	D2	L	S	L1	do	PCS/CTN
8010040133	20x1/2"	20	1/2"	36	49.5	16.5	5	180
8010040134	20x3/4"	20	3/4"	36	53.5	16.5	5	150
8010040135	25x1/2"	25	1/2"	38	49.5	18	5	180
8010040136	25x3/4"	25	3/4"	37.4	53.5	18	5	150

Female Thread Tee
(Soc×Soc×Fipt with Metal Insert)



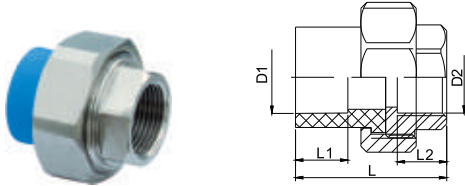
SAP Number (blue)	Size (mm×inch)	D1	D2	Z	L2	L1	L	PCS/CTN
8010040059	20x1/2"	20	1/2"	13.5	36	16.5	60	240
8010040060	20x3/4"	20	3/4"	16.5	36	16.5	66	210
8010040061	25x1/2"	25	1/2"	15	38	18	66	180
8010040062	25x3/4"	25	3/4"	17	38	18	70	150
8010040064	32x1/2"	32	1/2"	14.5	42	20.5	70	120
8010040065	32x3/4"	32	3/4"	17.5	42	20.5	76	120
8010040063	32x1"	32	1"	20	53	20.5	81	60
8010042074	50x1 1/2"	50	1-1/2"	31.5	66.5	25.5	114	30
8010042075	63x2"	63	2"	38	78.5	29.5	135	12
8010042076	75x2 1/2"	75	2-1/2"	46	89.5	33	158	

Male Thread Tee
(Soc×Soc×Mipt with Metal Insert)



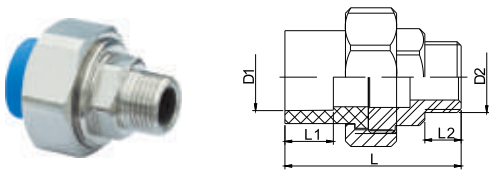
SAP Number (blue)	Size (mm×inch)	D1	D2	Z	L2	L1	L	PCS/CTN
8010040118	20x1/2"	20	1/2"	13.5	50	16.5	60	180
8010040119	20x3/4"	20	3/4"	16.5	50	16.5	66	150
8010040120	25x1/2"	25	1/2"	15	52	18	66	150
8010040121	25x3/4"	25	3/4"	17	52	18	70	120
8010040123	32x1/2"	32	1/2"	14.5	56	20.5	70	120
8010040124	32x3/4"	32	3/4"	17.5	56	20.5	76	90
8010040122	32x1"	32	1"	20	72	20.5	81	60
8010042087	50x1 1/2"	50	1-1/2"	30	87.5	25.5	111	
8010041984	63x2"	63	2"	32.25	103	29.5	123.5	
8010042088	75x2 1/2"	75	2-1/2"	41	118	33	148	

Female Thread Union (Soc×Fipt with Metal)



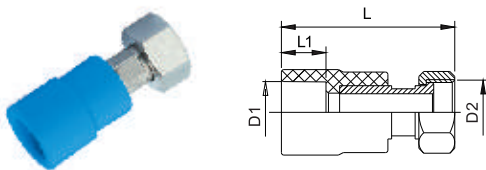
SAP Number (blue)	Size (mm×inch)	D1	D2	L1	L2	L	PCS/CTN
8010040055	20x1/2"	20	1/2"	16	16	42	180
8010040056	25x3/4"	25	3/4"	18	17	47	150
8010040057	32x1"	32	1"	20.5	18	52	90

Male Thread Union (Soc×Mipt with Metal)



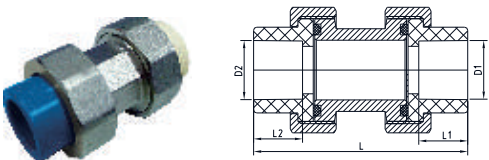
SAP Number (blue)	Size (mm×inch)	D1	D2	L1	L2	L	PCS/CTN
8010040114	20x1/2"	20	1/2"	16	14	55	150
8010040115	25x3/4"	25	3/4"	18	13.5	60	120
8010040116	32x1"	32	1"	20.5	19	71	72

Flexible Joint (Soc×Fipt with Metal)



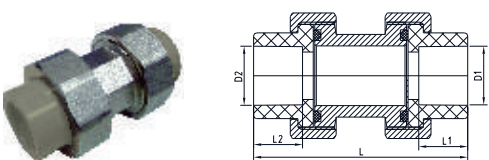
SAP Number (blue)	Size (mm×inch)	D1	D2	L	L1	PCS/CTN
8010041493	20x1/2"	20	1/2"	59	16.5	300
8010041513	20x3/4"	20	3/4"	59.5	16.5	240
8010041494	25x1/2"	25	1/2"	61	18	240
8010041495	25x3/4"	25	3/4"	62	18	240
8010041496	32x1"	32	1"	68.5	20	150

PE/PE-RT Change Union (Soc×Soc)



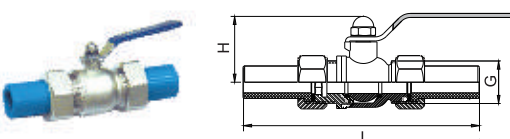
SAP Number (blue)	Size (mm×inch)	L	L1	L2	D1	D2	PCS/CTN
8010043376	20	72	14.5	16.5	20	20	
8010043377	25	77	17.8	18	25	25	
8010043378	32	82	20	20	32	32	

PPR/PE Change Union (Soc×Soc)



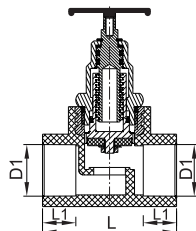
SAP Number (gray)	Size (mm×inch)	L	L1	L2	D1	D2	PCS/CTN
8010041987	20	71.5	16	16.5	20	20	180
8010041988	25	77	18	18	25	25	120
8010041989	32	83.8	20	20.5	32	32	72

Ball Valve (Spig×Spig)

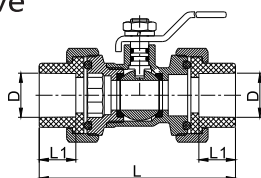


SAP Number (blue)	Size (mm)	L	G	H	PCS/CTN
8010040040	20	142	3/4"	33	96
8010040041	25	156.5	1"	35	72
8010040042	32	169	1-1/4"	42.2	36

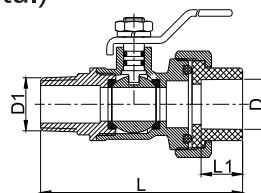
Stop Valve (Soc×Soc)



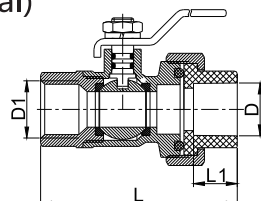
SAP Number (blue)	Size (mm)	D1	L1	L	PCS/CTN
8010040048	20	20	16.5	65	72
8010040049	25	25	18	74	60
8010040050	32	32	20.5	83	36
8010040051	40	40	22.5	89.5	36
8010040052	50	50	25.5	117	30
8010040053	63	63	29.5	124	20
8010044820	90	90	37	160	
8010044890	110	110	42	194	5

True Union Ball Valve
(Soc×Soc)

SAP Number (blue)	Size (mm)	D	L1	L	PCS/CTN
8010041519	20	20	16	85.8	96
8010041520	25	25	18	93.8	72
8010042644	32	32	20	103.2	36

Male Thread Union Ball Valve
(Soc×Mipt with Metal)

SAP Number (blue)	Size (mm)	D	D1	L1	L	PCS/CTN
8010042652	20x1/2"	20	1/2"	16	77.9	96
8010042653	25x3/4"	25	3/4"	18	83.9	72
8010042654	32x1"	32	1"	20	95.7	24

Female Thread Union Ball Valve
(Soc×Fipt with Metal)

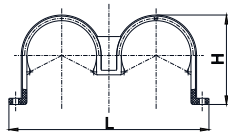
SAP Number (blue)	Size (mm)	D	D1	L1	L	PCS/CTN
8010042648	20x1/2"	20	1/2"	16	71.9	120
8010070930	25x3/4"	25	3/4"	18	75.4	72
8010042649	32x1"	32	1"	20	85.7	36

PE Single Male Manifold



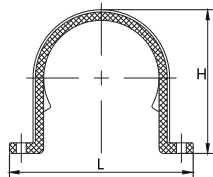
SAP Number (black)	Size (mm)	SDR	Brand Pipe	PCS/CTN
8010043349	50x1/2"	11	3	
8010043350	50x1/2"	11	4	
8010043351	50x1/2"	11	5	
8010043437	50x1/2"	11	6	
8010043415	50x1/2"	11	8	

Double U Clamp



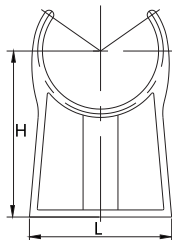
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
8010042974	20	72.5	27.5	
8010042975	25	85	33.8	
8010042976	32	100.5	41	
8010042977	40	122	50	
8010042978	50	147.5	61	
8010042979	63	178	76	

U Clamp



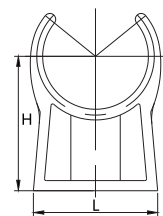
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
8010043595	20	44	27.5	
8010043596	25	50.5	33.8	
8010043597	32	57	41	
8010043598	40	68	50	
8010043781	50	78	61	

Clamp (Tall-style)



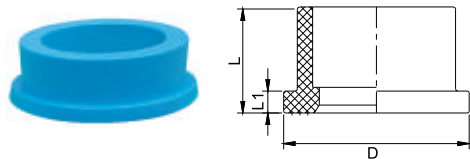
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
8010043601	20	24.5	40	
8010043602	25	30.5	45	
8010043603	32	37	50	
8010043604	40	46	60	
8010043780	50	60	70	

Clamp (Moderate-style)



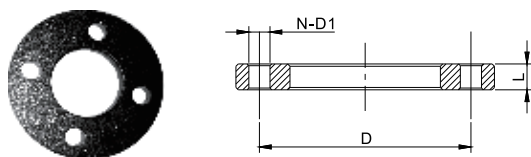
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
8010043599	20	24.5	30	
8010043600	25	30.5	35	
8010043749	32	37	40	
8010043750	40	46	45	
8010043751	50	60	55	

Stub Flange (Soc×Flange)



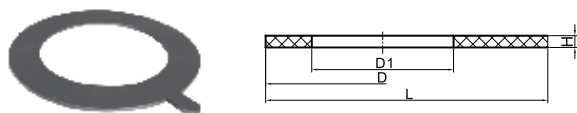
SAP Number (blue)	Size (mm)	L1	L	D	PCS/CTN
8010040009	50	10	30	84	90
8010040010	63	11	34	104	60
8010040011	75	14	38	124	

Flange(Steel Tray)



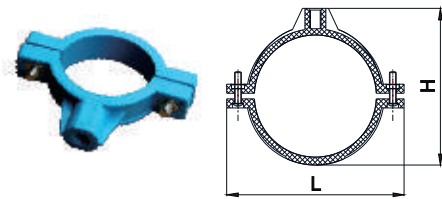
SAP Number (black)	Size (mm)	D	D1	N	L	PCS/CTN
8010041616	50 1.6MPa	110	18	4	10	
8010041617	63 1.6MPa	125	18	4	12	
8010043144	75 1.6MPa	145	18	4	15	

Rubber Gasket



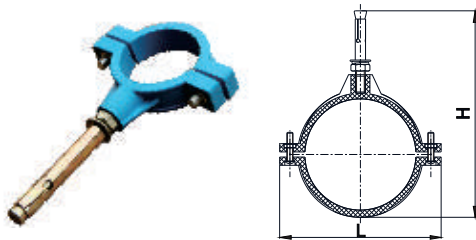
SAP Number (black)	Size (mm)	D1	D	L	H	PCS/CTN
8010040188	50	45	86	113	4	
8010040189	63	58	105	132.5	4	
8010040190	75	68	127	153.5	4	

Pipe Clamp I (without Screw)



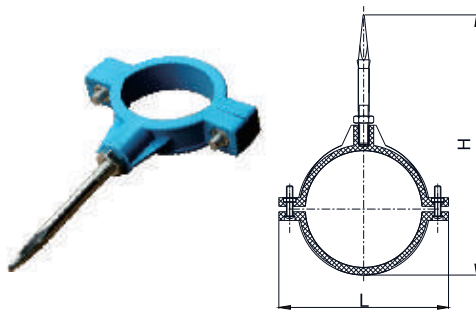
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
8010043001	20	49	42	
8010043004	25	54	47	
8010043007	32	64	54	
8010043010	40	72	62.5	
8010043013	50	87	73	
8010043016	63	106	87.5	
8010043019	75	118.5	101	

Pipe Clamp I (Screw)



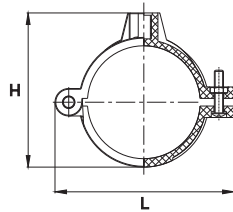
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
8010043002	20	49	96	480
8010043005	25	54	101	
8010043008	32	64	108	
8010043011	40	72	116.5	
8010043014	50	87	127	
8010043017	63	106	140.5	
8010043020	75	118.5	154	

Pipe Clamp I (Tusk Screw)



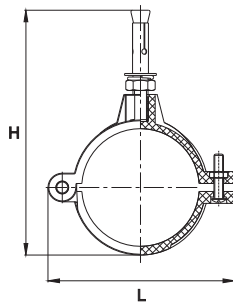
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
8010043003	20	49	96	
8010043006	25	54	101	
8010043009	32	64	108	
8010043012	40	72	116.5	
8010043015	50	87	137	
8010043018	63	106	150.5	
8010043021	75	118.5	164	

Pipe Clamp IV (Without Screw)



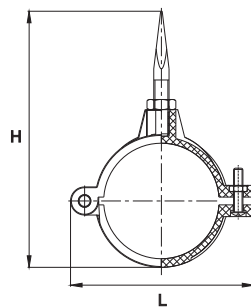
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
8010043038	40	72.5	62.5	
8010043041	50	88.5	73	

Pipe Clamp IV (Screw)



SAP Number (blue)	Size (mm)	L	H	PCS/CTN
8010043040	40	72.5	111.5	
8010043043	50	88.5	127	

Pipe Clamp IV (Tusk Screw)



SAP Number (blue)	Size (mm)	L	H	PCS/CTN
8010043039	40	72.5	116.5	
8010043042	50	88.5	137	

Definitions of abbreviated configuration description follow

Soc: Socket

Fipt: Female Iron Pipe Thread

Spig: Spigot

Mipt: Male Iron Pipe Thread



■ Features

Material: PE 100

Size: full 75mm through 800mm availability

Pressure Rating: 1.0MPa, 1.25MPa, 1.6MPa or other nominal pressures available upon request

Standard: ISO 4427-3, EN 12201-3, BS EN 12201-3 AS/NZS 4129 BS 6920

Color: blue (all size)

black (dn110 or above)

other colors are also available upon request

Joint: joining pipe and butt joint fittings by butt fusion joint

■ Advantages

Non-toxic: no heavy metal additives, would not be covered with dirt or contaminated by bacterium

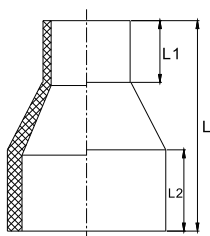
Corrosion Resistance: resist chemical matters and electron chemical corrosion

Low Installation Costs: light weight and ease of installation can reduce installation costs

High Flow Capacity: smooth interior walls result in low pressure loss and high volume

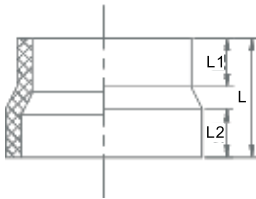
Longevity: more than 50 years under proper use

Reducer



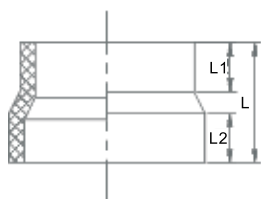
SAP Number (black)	SAP Number (blue)	SDR	Size (mm)	L1	L2	L	PCS/CTN
8010040840	8010040847	11	75×63	70	72.5	156	60
8010040841	8010040848	11	90×63	65	82	170	40
8010040842	8010040849	11	90×75	70	82.6	167	40
8010040816	8010040843	11	110×50	65	79.6	200	
8010040817	8010040844	11	110×63	65	89	195	36
8010040818	8010041414	11	110×75	70	84.7	185	32
8010040819	8010040845	11	110×90	76	83.6	172	30
8010040821	8010042277	11	125×63	65	88.6	202	24
8010040822	8010042278	11	125×90	76	83.3	193	
8010040820	8010042276	11	125×110	84	91	195	20
8010040825	8010040846	11	160×90	80	102.2	238	12
8010040823	8010041391	11	160×110	84	102.8	230	12
8010040824	8010042279	11	160×125	88	103.6	222	12
8010040828		11	180×63	67	85.3	205	
8010040826	8010042280	11	180×110	76	84.1	213	12
8010040827	8010042281	11	180×160	75	84.1	182	10
8010040829	8010041390	11	200×110	84	116.1	270	6
8010040830	8010041389	11	200×160	100	100.3	237	6
8010040831	8010042282	11	200×180	87	100.8	205	6
8010040832	8010042283	11	225×160	86	97.4	231	6
8010040833	8010042284	11	225×200	89	96	205	4
8010040834	8010042285	11	250×110	82	91.3	217	5
8010040835	8010042286	11	250×160	100	105	290	3
8010040836	8010042287	11	250×200	101	104.5	254	4
8010040837	8010042288	11	250×225	91	96.5	208	3
8010043391		11	315×160	98	155	300	2
8010044633		11	315×180	105	155.5	297	
8010040838		11	315×200	112	156	304	2
8010044613		11	315×225	120	157.6	310	2
8010044839		11	315×250	130	161.3	322	2
8010044822		11	400×225	120	159	344	
8010040852	8010042290	13.6	280×110	77	90.4	295	3
8010040853	8010042291	13.6	280×160	79	90.3	257	4
8010040854		13.6	280×200	94	90.1	253	4
8010040855	8010040861	13.6	315×110	81	87.8	231	3
8010040856	8010041415	13.6	315×160	86	91.4	250	2
8010040857	8010042292	13.6	315×200	106	103.23	296	2
8010040851	8010040862	13.6	315×225	90	94.3	223	2
8010040858	8010042293	13.6	315×250	81	98.9	234	2
8010040859	8010043633	13.6	315×280	83	92	200	/

Reducer



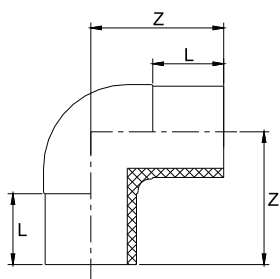
SAP Number (black)	SAP Number (blue)	SDR	Size (mm)	L1	L2	L	PCS/CTN
8010042311	8010044819	17	75×63	70	72.5	156	60
8010042313	8010043309	17	90×63	70	82	170	40
8010042314		17	90×75	70	82.6	167	40
8010042295	8010044306	17	110×50	65	79.6	200	
8010042296	8010043310	17	110×63	65	89	195	36
8010040863	8010044612	17	110×75	70	84.7	185	32
8010040864	8010043311	17	110×90	76	83.6	172	30
8010044502		17	125×63	65	88.6	202	24
8010040865	8010043496	17	125×90	76	83.3	193	
8010042297	8010044873	17	125×110	84	91	195	20
8010040868	8010043497	17	160×90	80	102.2	238	12
8010040866	8010043481	17	160×110	84	102.8	230	12
8010040867		17	160×125	88	103.6	222	12
8010042983		17	180×63	67	85.3	205	
8010042298		17	180×110	76	84.1	213	12
8010040869	8010043202	17	180×160	75	84.1	182	10
8010040870	8010043860	17	200×110	84	116.1	270	6
8010040871	8010043862	17	200×160	100	100.3	237	6
8010042299		17	200×180	87	100.8	205	6
8010040872	8010043742	17	225×160	86	97.4	231	6
8010042301	8010043792	17	225×200	89	96	205	4
8010040873	8010043794	17	250×110	82	91.3	217	5
8010040874	8010044378	17	250×160	100	105	290	3
8010040875		17	250×200	100	104.5	254	4
8010040876	8010043728	17	250×225	91	96.5	208	3
8010042302	8010043793	17	280×110	77	90.4	295	3
8010040877	8010043729	17	280×160	79	90.3	257	4
8010042303	8010043791	17	280×200	94	90.1	253	4
8010040878	8010043081	17	315×110	81	87.8	231	3
8010040879	8010043077	17	315×160	86	91.4	250	2
8010040880	8010043078	17	315×200	106	103.23	296	2
8010040881	8010044367	17	315×225	90	94.3	223	2
8010040882	8010044368	17	315×250	81	98.9	234	2
8010040883		17	315×280	83	92	200	/
8010040884	8010044379	17	355×200	84	93.9	286	/
8010040885	8010044373	17	355×250	77	92.5	243	/
8010040886	8010042315	17	355×315	85	103.3	217	/
8010040887	8010043861	17	400×200	76	97	267	/
8010040888	8010043730	17	400×250	74	100.7	240	/
8010040889	8010044380	17	400×315	85	78.3	220	/
8010040891		17	450×200	73	79.6	262	/
8010040892	8010044381	17	450×250	77	84.5	246	/
8010040893	8010042317	17	450×315	37	52.	126	/
8010040896		17	500×315	110	108.2	275	/
8010040897		17	500×355	113	109.7	277	/

Reducer



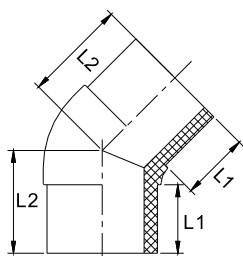
SAP Number (black)	SAP Number (blue)	SDR	Size (mm)	L1	L2	L	PCS/CTN
8010040898	8010042319	17	500×400	110	113	278	/
8010042307		17	500×450	118	118.6	279	/
8010040899		17	560×400	105	102.6	250	/
8010041971		17	560×450	105	104.9	250	/
8010042308		17	560×500	105	108.8	250	/
8010042309		17	★ 630×315	100	100	290	/
8010040900		17	★ 630×400	100	100	290	/
8010040901	8010042320	17	★ 630×500	100	100	290	/
8010042321		26	500×315	110	108.2	275	/
8010043925		26	500×355	113	109.7	277	/
8010040905		26	500×400	110	115.4	273	/
8010042322		26	500×450	118	118.6	279	/
8010042323		26	560×315	97.5	101.3	250	/
8010040906		26	560×400	105	102.6	250	/
8010042324		26	560×450	105	104.9	250	/
8010043145		26	560×500	144	108.8	250	/

90° Elbow



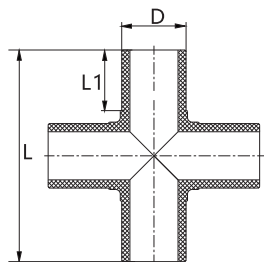
SAP Number (black)	SAP Number (blue)	SDR	Size (mm)	Z	L	PCS/CTN
8010040751	8010040756	11	75	132	75	30
8010040752	8010040757	11	90	150	85	20
8010040743	8010040753	11	110	163	87	12
8010040744	8010042253	11	125	170.5	87	8
8010040745	8010040754	11	160	200	100	5
8010040746		11	180	210	95	4
8010040747	8010040755	11	200	225	100	3
8010040748		11	225	265	120	/
8010040749	8010042254	11	250	292	130	/
8010040750	8010043502	11	280	316	138	/
8010041624	8010044556	11	315	355	150	/
8010042257	8010043193	17	75	132	75	30
8010040766	8010043192	17	90	150	85	20
8010040759	8010043229	17	110	163	87	12
8010042256	8010043486	17	125	170.5	87	8
8010040760	8010043249	17	160	200	100	5
8010040761		17	180	210	95	4
8010040762	8010044311	17	200	225	100	3
8010040763	8010043441	17	225	265	120	/
8010040764	8010042258	17	250	292	130	/
8010040765	8010043297	17	280	316	138	/
8010041623	8010044557	17	315	355	150	/
8010043551		17	355	330	110	/

45° Elbow



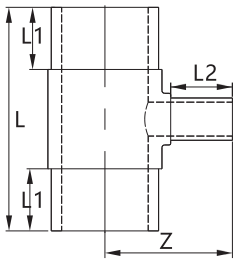
SAP Number (black)	SAP Number (blue)	SDR	Size (mm)	L1	L2	PCS/CTN
8010040732	8010040734	11	75	80	124	30
8010040733	8010040735	11	90	85	136	18
8010040725	8010041385	11	110	87	145	10
8010040726	8010042245	11	125	87	150	4
8010040727	8010043300	11	160	100	175	3
8010040728		11	180	105	183	3
8010040729	8010043168	11	200	110	193	/
8010040730	8010042246	11	225	122	215	/
8010040731	8010042247	11	250	130	232	/
8010041412	8010043501	11	280	140	250	/
8010044463		11	315	150	270	/
8010042687	8010044818	17	75	80	124	30
8010041541	8010043230	17	90	85	136	18
8010040736	8010043231	17	110	87	145	12
8010042250	8010043485	17	125	87	150	10
8010040737	8010042985	17	160	100	175	4
8010040738	8010043196	17	180	105	183	3
8010040739	8010043785	17	200	110	193	3
8010040740	8010042251	17	225	122	215	/
8010040741	8010042252	17	250	130	232	/
8010040742	8010043298	17	280	140	250	/

Cross



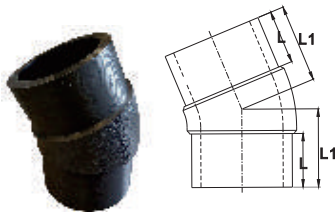
SAP Number (black)	SAP Number (blue)	SDR	Size (mm)	L1	L	D	PCS/CTN
8010043326	8010043901	11	63	63	220	67	
8010043327	8010044483	11	75	70	254	79	
8010043438		11	90	79	288	95	
8010044510		11	110	82	339	110	
8010044511		11	125	87	363	125	
8010044006		11	160	98	426	160	
8010044605		11	200	112	510	200	
8010044790		11	225	120	558	558	
8010044498		17	63	63	220	67	
8010044499		17	75	70	254	79	
8010044500		17	90	79	288	95	
8010044501		17	160	98	426	160	
8010044711		17	110	82	339	110	
8010044712		17	125	87	363	125	
8010044713		17	200	112	510	200	
8010044791		17	225	120	558	225	

Reducing Tee



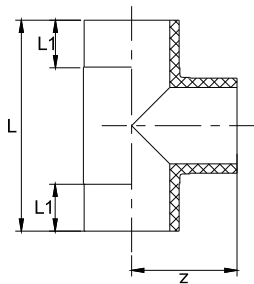
SAP Number (black)	SAP Number (blue)	SDR	Size (mm)	L1	L2	L	Z	PCS/CTN
8010040789	8010040802	11	110×63	87	85	302	160.75	10
8010040790	8010040803	11	110×75	87	84.5	302	161.25	10
8010040791	8010040804	11	110×90	87	87	302	162.25	9
8010040794	8010040806	11	160×63	92.5	92	333	190	
8010040795	8010042266	11	160×75	92.5	91.5	333	188.5	
8010040796	8010040807	11	160×90	92.5	91.5	333	188.5	5
8010040793	8010040805	11	160×110	92.5	90.5	333	186	5
8010042265	8010042267	11	200×90	112	80	424	226	2
8010040797	8010041628	11	200×110	114	84	373	205	2
8010040798		11	200×160	100	100	426	230	2
8010042984	8010043563	11	250×63	130	65	500	250	
8010040799		11	250×110	130	84	460	248	/
8010040800		11	250×160	130	100	510	270	/
8010044443		11	315×160	150	98	542	298.5	
8010044442		11	315×110	150	82	492	281.5	
8010044907		11	315×180	150	105	568	308.5	
8010044444		11	315×200	150	112	590	315.5	
8010044487		11	400×315	180	150	775	390	
8010040809	8010043250	17	110×63	87	85	302	160.75	10
8010040810	8010044611	17	110×75	87	84.5	302	161.25	10
8010042269	8010043251	17	110×90	87	87	302	162.25	9
8010042271	8010043252	17	160×63	92.5	92	333	190	
8010040811		17	160×75	92.5	91.5	333	188.5	
8010042272	8010043253	17	160×90	92.5	91.5	333	188.5	5
8010042270	8010043254	17	160×110	92.5	90.5	333	186	5
8010043037		17	200×90	112	80	424	226	2
8010040812	8010041387	17	200×110	114	84	373	205	2
8010040813	8010041973	17	200×160	100	100	426	230	2
8010040814	8010043787	17	250×110	130	84	460	248	/
8010040815	8010043494	17	250×160	130	100	510	270	/
8010044397		17	315×160	150	98	542	298.5	
8010044565		17	315×200	150	112	590	315.5	

22.5° Elbow



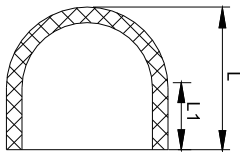
SAP Number (black)	SAP Number (blue)	SDR	Size (mm)	Z	L	PCS/CTN
8010044637		11	225	175	120	
8010044710		17	225	175	120	

Tee



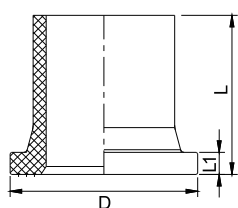
SAP Number (black)	SAP Number (blue)	SDR	Size (mm)	L1	L	Z	PCS/CTN
8010042241	8010044340	11	63	65	224	112	
8010040708	8010040714	11	75	75	264	132	18
8010040709	8010040715	11	90	85	300	150	14
8010040699	8010040710	11	110	90	325	163.5	8
8010040700		11	125	87	341	170.5	6
8010040701	8010040712	11	160	100	400	210	3
8010040702	8010044347	11	180	105	430	215	3
8010040703	8010040713	11	200	103	456	228	2
8010040704	8010042242	11	225	120	530	265	/
8010040705	8010044409	11	250	130	600	300	/
8010040706	8010044310	11	280	138	632	316	/
8010040707		11	315	150	710	355	/
8010044497	8010044431	17	63	65	224	112	
8010043768	8010044705	17	75	75	264	132	18
8010041540	8010043305	17	90	85	300	150	14
8010040717	8010043255	17	110	90	325	163.5	8
8010042243		17	125	87	341	170.5	6
8010040718	8010043256	17	160	100	400	210	3
8010041620	8010043201	17	180	105	430	215	3
8010040719		17	200	103	456	228	2
8010040720	8010043439	17	225	120	530	265	/
8010040721	8010042244	17	250	130	600	300	/
8010040722	8010043440	17	280	138	632	316	/
8010040723	8010043080	17	315	150	710	355	/
8010040724	8010044372	17	355	103.5	660	330	/
8010041383	8010043726	17	400	102	715	357.5	/
8010043922		26	355	103.5	660	330	/

Cap



SAP Number (black)	SAP Number (blue)	SDR	Size (mm)	L1	L	PCS/CTN
8010042229	8010042237	11	63	50.5	82	
8010040681	8010040683	11	75	81.2	111	100
8010040682	8010040684	11	90	79.7	117	60
8010040672	8010042230	11	110	83.43	127	40
8010040673	8010042231	11	125	92.93	145	24
8010040674	8010042232	11	160	111	175	15
8010040675		11	180	105	177	12
8010040676	8010042233	11	200	113.1	195	8
8010040677	8010042234	11	225	114	207	5
8010040678	8010041583	11	250	118.2	224	4
8010040679	8010042235	11	315	88.6	140	/
8010040680	8010042236	11	400	82	150	/
8010040690		13.6	280	115.8	223	4
8010044503	8010043302	17	63	50.5	82	
8010042238		17	75	81.2	111	100
8010041409	8010042239	17	90	79.7	117	60
8010041542	8010043257	17	110	83.43	127	40
8010044504	8010043817	17	125	92.93	145	24
8010040691	8010043258	17	160	111	175	15
8010042982	8010043198	17	180	105	177	12
8010040692	8010044305	17	200	113.1	195	8
8010040693	8010043782	17	225	111.4	207	5
8010041543	8010044382	17	250	118.2	224	4
8130070124	8010043303	17	280	115.8	223	4
8010040694	8010043197	17	315	88.6	140	/
8010040695	8010044383	17	355	70.2	120	/
8010040696	8010043461	17	400	82	150	/
8010044698		17	450	149.7	195	
8010044689		17	500	149.7	200	
8010044690		17	560	152.8	220	
8010044691		17	630	160	220	

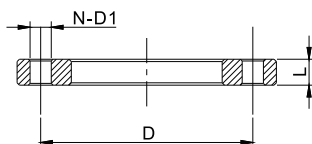
Stub Flange



SAP Number (black)	SAP Number (blue)	SDR	Size (mm)	L1	L	D	PCS/CTN
8010040580	8010043586	11	50	10	86	90	
8010040581	8010043062	11	63	11	98	102	
8010040582	8010040588	11	75	16	120	122	48
8010040583	8010040589	11	90	17	135	138	24
8010040571	8010040584	11	110	18	140	158	18
8010040572	8010040585	11	125	18	150	158	16
8010040573	8010040586	11	160	25	175	212	6
8010040574	8010042203	11	180	30	180	212	6
8010040575	8010040587	11	200	32	190	268	4
8010040576	8010042204	11	225	25	195	268	4
8010040577	8010042205	11	250	34	150	320	4
8010040578	8010042206	11	280	35	145	320	3
8010040664	8010040663	11	315	33	145	370	3
8010040666	8010042666	11	400	33	140	482	1
8010042967		11	450	50	120	545	
8010040662	8010043706	13.6	355	31	120	432	2
8010044505		17	50	10	86	90	
8010042213	8010043259	17	63	11	98	102	
8010040603	8010042775	17	75	16	120	122	48
8010041552	8010042748	17	90	17	135	138	24
8010040595	8010043238	17	110	18	140	158	18
8010042208	8010043500	17	125	18	150	158	16
8010040597	8010043204	17	160	25	175	212	6
8010042209		17	180	30	180	212	6
8010040598	8010043194	17	200	32	190	268	4
8010040599	8010043499	17	225	25	195	268	4
8010040600	8010042214	17	250	34	150	320	4
8010040601	8010043304	17	280	35	145	320	3
8010040653	8010043079	17	315	33	145	370	3
8010040654	8010043526	17	355	31	120	432	2
8010040655	8010043239	17	400	33	140	482	1
8010040656	8010043240	17	450	50	120	545	/
8010040657	8010043241	17	500	46	170	585	/
8010040658	8010043707	17	560	50	195	685	/
8010040659	8010043525	17	630	50	160	685	/
8010040660		17	★ 710				/
8010040661		17	★ 800				/
8010040649		26	500	46	170	585	/
8010040605		26	560	50	195	685	/
8010040606	8010043029	26	630	50	160	685	/

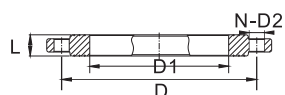
The product mold marked as "★" on this page has not been improved, please note.

Flange (Steel Tray)



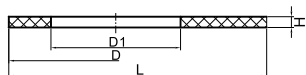
SAP Number (black)	SAP Number (blue)	Mpa	Size (mm)	D	D1	N	L	PCS/CTN
8010040521	8010040534	1.0	200	295	8	12	24	
8010040522	8010042198	1.0	225	295	8	12	24	
8010040523	8010040535	1.0	250	350	22	12	26	
8010040524		1.0	280	350	22	12	26	
8010040525	8010040536	1.0	315	400	22	12	28	
8010040526	8010040537	1.0	355	460	22	16	30	
8010040527	8010041582	1.0	400	515	26	16	32	
8010040528	8010040538	1.0	450	565	26	20	32	
8010040529	8010044352	1.0	500	620	26	20	32	
8010040530	8010044758	1.0	560	725	30	20	36	
8010040557	8010040566	1.6	75	145	18	4	18	
8010040559	8010040567	1.6	90	160	18	8	20	
8010040542	8010040560	1.6	110	180	18	8	22	
8010040543	8010043518	1.6	125	180	18	8	22	
8010040544	8010040561	1.6	160	240	22	8	24	
8010040545	8010040562	1.6	180	240	22	8	24	
8010040546	8010040563	1.6	200	295	22	12	26	
8010040547	8010043517	1.6	225	295	22	12	26	
8010040548	8010040564	1.6	250	355	26	12	29	
8010040549	8010043503	1.6	280	355	26	12	29	
8010040550	8010040565	1.6	315	410	26	12	32	
8010040551	8010043516	1.6	355	470	26	16	35	
8010040552	8010043260	1.6	400	525	30	16	32	
8010040553	8010043261	1.6	450	585	30	20	37	
8010040555	8010043262	1.6	500	650	33	20	44	
8010041712	8010043704	1.6	560	770	36	20	55	
8010040556	8010041534	1.6	630	770	36	20	55	
8010044588		1.6	710	840	36	24	63	
8010040558	8010041535	1.6	800	950	39	24	42	

Spacer Flange



SAP Number	SDR	Size (mm)	D	D1	L	N	D2	PCS/CTN
8010041568	11	110	180	120	20	8	18	
8010042681	11	160	240	170	24	8	23	
8010042679	17	160	240	170	22	8	23	
8010042685	11	200	295	210	32	12	23	
8010042683	17	200	295	210	28	8	23	

Rubber Gasket



SAP Number	Size (mm)	D1	D	L	H	PCS/CTN
8010040783	75				3.5	
8010040785	90				3.5	
8010040767	110				3.5	
8010040768	125				3.5	
8010040769	160				3.5	
8010040770	180				3.5	
8010040771	200				3.5	
8010040772	225				3.5	
8010040773	250				3.5	
8010040774	280				3.5	
8010040775	315				4	
8010040776	355				4.5	
8010040777	400				5	
8010040778	450				5	
8010040779	500				5	
8010040780	560				5	
8010040781	630				5	
8010040782	710				5	
8010040784	800				5	



■ Features

Material: PE 100

Size: full 20mm through 400mm availability

Pressure Rating: 1.6MPa or other nominal pressures available upon request

Standard: ISO 4427-3, EN 12201-3, BS EN 12201-3 AS/NZS 4129 BS 6920

Color: blue, black or other colors available upon request

Joint: joining pipe and electro fusion fittings by electro fusion joint

■ Advantages

Non-toxic: no heavy metal additives, would not be covered with dirt or contaminated by bacterium

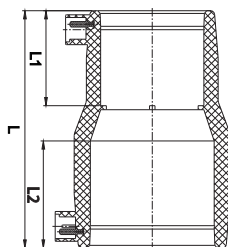
Corrosion Resistance: resist chemical matters and electron chemical corrosion

Low Installation Costs: light weight and ease of installation can reduce installation costs

High Flow Capacity: smooth interior walls result in low pressure loss and high volume

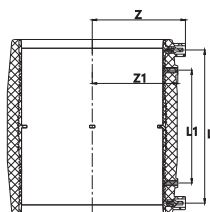
Longevity: more than 50 years under proper use

E/F Reducer



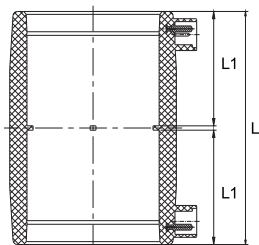
SAP Number (black)	Size (mm)	L	L1	L2	PCS/CTN
8010040493	32×25	89	41	44	250
8010040496	40×32	105	44	49	150
8010040497	50×32	115	44	55	126
8010040498	50×40	115	49	55	100
8010040499	63×32	130	44	63	72
8010040500	63×40	130	49	63	72
8010040501	63×50	130	55	63	70
8010040502	75×63	145	63	70	48
8010040503	90×63	175	63	79	28
8010040504	90×75	175	70	79	28
8010040474	110×50	160	55	82	24
8010040475	110×63	180	63	82	20
8010040476	110×75	180	70	82	24
8010040477	110×90	180	79	82	20
8010040478	125×90	195	79	87	14
8010040481	160×90	224	79	98	6
8010040479	160×110	224	82	98	6
8010040485	★ 200×63	250	63	112	5
8010040482	200×110	250	82	112	4
8010040483	200×160	250	98	112	4
	★ 225×110	255	82	120	
	★ 225×160	260	98	120	
8010040487	250×110	280	82	129	3
8010040488	250×160	280	98	129	2
8010040489	250×200	280	112	129	2
8010040490	315×160	320	98	150	
8010040491	315×200	320	112	150	1
8010040492	315×250	320	129	150	1
8010040494	400×200	370	112	179	
8010040495	400×315	370	150	179	

New Type Electro Fusion Coupling



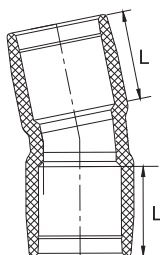
SAP Number (black)	Size (mm)	L	L1	Z	Z1	PCS/CTN
8010044891	90	131	87	69.5	45.4	
8010044821	110	137	93	68.5	55.4	
8010044468	160	175	129	106.4	97.7	
8010044825	200	183	137	126.5	123	

E/F Coupling



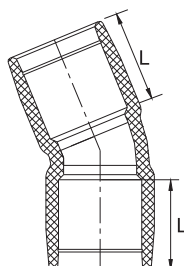
SAP Number (black)	Size (mm)	L	L1	PCS/CTN
8010040318	20	84	41	350
8010040321	25	84	41	320
8010040325	32	90	44	240
8010040327	40	100	49	180
8010040330	50	113	55	82
8010040332	63	129	63	54
8010040333	75	143	70	48
8010040334	90	161	79	32
8010040314	110	167	82	18
8010040315	125	177	87	12
8010040316	160	199	98	6
8010040317	180	213	105	4
8010040319	200	227	112	4
8010040320	225	243	120	2
8010040322	250	261	129	2
8010040323	280	273	135	2
8010040324	315	304	150	1
8010040326	355	332	164	1
8010040328	400	362	179	1
8010040329	450	394	194.5	
8010040331	500	429	212	
8010042122	560	476	234	
8010042123	630	546	270	

E/F 11.25° Elbow



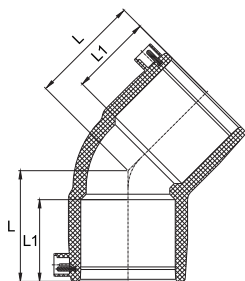
SAP Number (black)	Size (mm)	L	PCS/CTN
8010044792	50	55	46
8010044726	63	63	24
8010044728	75	70	30
8010044694	90	79	23

E/F 22.5° Elbow



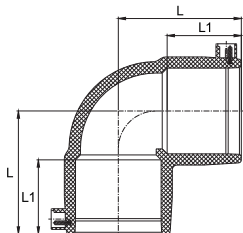
SAP Number (black)	Size (mm)	L	PCS/CTN
8010044793	50	55	42
8010044727	63	63	22
8010044729	75	70	30
8010044794	90	79	8

E/F 45° Elbow



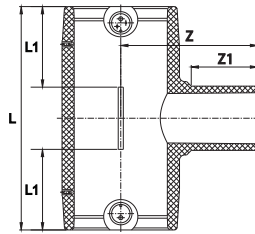
SAP Number (black)	Size (mm)	L	L1	PCS/CTN
8010040362	32	56	44	180
8010040363	40	64	49	120
8010040365	50	73	55	80
8010040366	63	85	63	50
8010040367	75	95	70	48
8010040368	90	107	79	20
8010040355	110	116	82	12
8010040356	125	127	87	8
8010040357	160	150	98	4
8010040358	180	157	105	3
8010040359	200	170	112	2
	★ 225	182	120	
8010040360	250	202	129	1
8010040361	315	238	150	
8010040364	400	280	179	

E/F 90° Elbow



SAP Number (black)	Size (mm)	L	L1	PCS/CTN
8010040379	20	54	41	360
8010040381	25	56.2	41	240
8010040384	32	65	44	160
8010040385	40	74	49	100
8010040387	50	86	55	60
8010040388	63	100	63	40
8010040389	75	114	70	24
8010040390	90	131	79	16
8010040375	110	145	82	9
8010040376	125	159	87	6
8010040377	160	192	98	4
8010040378	180	206	105	2
8010040380	200	225	112	2
8010044643	★ 225	245	120	
8010040382	250	265	129	1
8010040383	315	320	150	
8010040386	400	395	179	

E/ F Reducing Tee

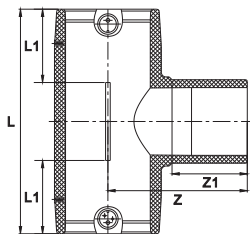


SAP Number (black)	Size (mm)	L	L1	Z1	Z	PCS/CTN
8010040434	32×20	107	44	43	70	130
8010040435	32×25	111.5	44	43	70	130
8010040441	40×20	118.5	49	43	76	90
8010040442	40×25	123	49	43	76	90
8010040443	40×32	129	49	46	79	90
8010040444	50×20	130.5	55	42	79.5	70
8010040445	50×25	135.8	55	43	81	65
8010040446	50×32	142.2	55	46	84	60
8010040447	50×40	149	55	51	89	60
8010040448	63×20	153	63	43	90	40
8010040449	63×25	158	63	43	90	40
8010040450	63×32	165.5	63	46	96	40
8010040451	63×40	172.5	63	51	101	40
8010040452	63×50	180.5	63	57	107	36
8010040453	75×40	186.3	70	51	109	
8010040454	75×50	194.2	70	57	115	
8010040455	75×63	204	70	65	123	
8010040456	90×40	197	79	51	120	16
8010040457	90×50	209.5	79	57	126	16
8010040458	90×63	219	79	65	134	15
8010040459	90×75	230	79	72	141	14
8010040403	110×50	218	82	57	140	10
8010040404	110×63	226	82	65	148	10

SAP Number (black)	Size (mm)	L	L1	Z1	Z	PCS/CTN
8010040405	110×75	238	82	72	155	9
8010040406	110×90	250	82	81	164	6
8010040408	125×63	239	87	65	160	6
8010040409	125×75	249.6	87	72	167	6
8010040410	125×90	261.6	87	81	175	6
8010040407	125×110	278.6	87	84	178	4
8010040412	160×50	249	98	57	174	4
8010040413	160×63	259	98	65	182	3
8010040414	160×75	270	98	72	189	3
8010040415	160×90	282	98	81	198	3
8010040411	160×110	298	98	84	201	
8010043150	180×160	352	105	100	230	2
8010040418	200×50	308	112	70	216	2
8010040419	200×63	308	112	70	216	
8010040420	200×75	308	112	81	227	
8010040421	200×90	308	112	81	227	2
8010040416	200×110	365	112	100	245	2
8010040417	200×160	365	112	100	245	
8010040425	250×50	330	129	80	252	
8010040426	250×63	330	129	80	252	
8010040427	250×75	330	129	80	254	
8010040428	250×90	358	129	90	265	1
8010040422	250×110	358	129	90	265	1
8010040423	250×160	430	129	110	291	1
8010040424	250×200	430	129	120	291	
8010040433	315×90	440	150	100	325	
8010040429	315×110	440	150	100	325	
8010040430	315×160	440	150	105	325	
8010040431	315×200	514	150	120	346	
8010040432	315×250	514	150	134	346	
8010040436	400×110	453	179	82	355	
8010040437	400×160	526	179	110	390	
8010040438	400×200	526	179	112	390	
8010040439	400×250	619	179	134	415	
8010040440	400×315	619	179	163	425	

Nominal Pressure is available in 0.6MPa, 1.0MPa and 1.6MPa.

E/F Tee



SAP Number (black)	Size (mm)	L	L1	Z1	Z	PCS/CTN
8010040289	20	98	41	42	60.5	180
8010040291	25	102	41	42	63	
8010040294	32	118	44	46	73	120
8010040295	40	136	49	51	84	70
8010040297	50	157	55	57	95	48
8010040298	63	190	63	65	115	30
8010040299	75	215	70	72	130	20
8010040300	90	242	79	81	150	12
8010040285	110	266	82	86	167	7
8010040286	125	290	87	89	181	5
8010040287	160	338	98	105	222	3
8010040288	180	368	105	107	237	2
8010040290	200	398	112	115	255	1
8010044640	★ 225	460	120	129	290	
8010040292	250	472	129	135	301	1
8010040293	315	567	150	150	360	
8010040296	400	690	179	179	440	

E/F Tapping Saddle



SAP Number (black)	Size (mm)	PCS/CTN
8010042710	63×25	
8010042711	63×32	
8010042712	75×32	
8010042713	90×32	
8010042714	90×63	12
8010042715	110×32	
8010042716	110×40	
8010042717	110×63	10
8010042718	125×32	
8010042719	125×63	
8010042720	160×32	
8010042721	160×63	5
8010042722	180×32	
8010042723	180×63	
8010042724	200×32	
8010042725	200×63	
8010042726	200×90	4
8010042727	250×90	3
8010042728	★ 315×110	
8010042729	★ 315×160	

The product mold marked as "★" on this page has not been improved, please note.

E/F Straight Saddle



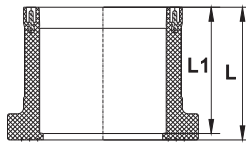
SAP Number (black)	Size (mm)	PCS/CTN
8010042696	75×63	
8010042697	90×63	40
8010042698	110×63	30
8010042699	125×63	
8010042700	160×63	
8010042701	180×63	
8010042702	200×63	12
8010042703	200×90	12
8010042704	★ 250×63	
8010042705	250×90	12
8010042706	★ 315×63	
8010042707	★ 315×90	
8010042708	315×110	4
8010042709	315×160	3

E/F Stop Saddle



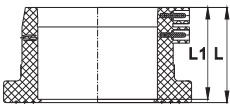
SAP Number (black)	Size (mm)	PCS/CTN
8010041359	90	36
8010041353	110	30
8010041354	125	30
8010041355	160	30
8010041356	200	20
8010041357	250	
8010041358	315	8

E/F Stub Flange



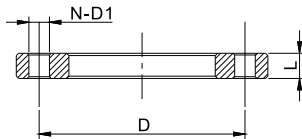
SAP Number (black)	Size (mm)	L	L1	PCS/CTN
8010043684	50	62	55	
8010043692	63	66	63	
8010043685	75	73	70	
8010042116	90	81	79	
8010040278	160	128	125	12
8010040279	200	138	134	6
8010040280	250	142	138	3
8010040281	315	159	150	2
8010040282	400	185	175	
8010040283	500	220	210	
8010043074	630	283	255	

E/F Stub Flange (short)

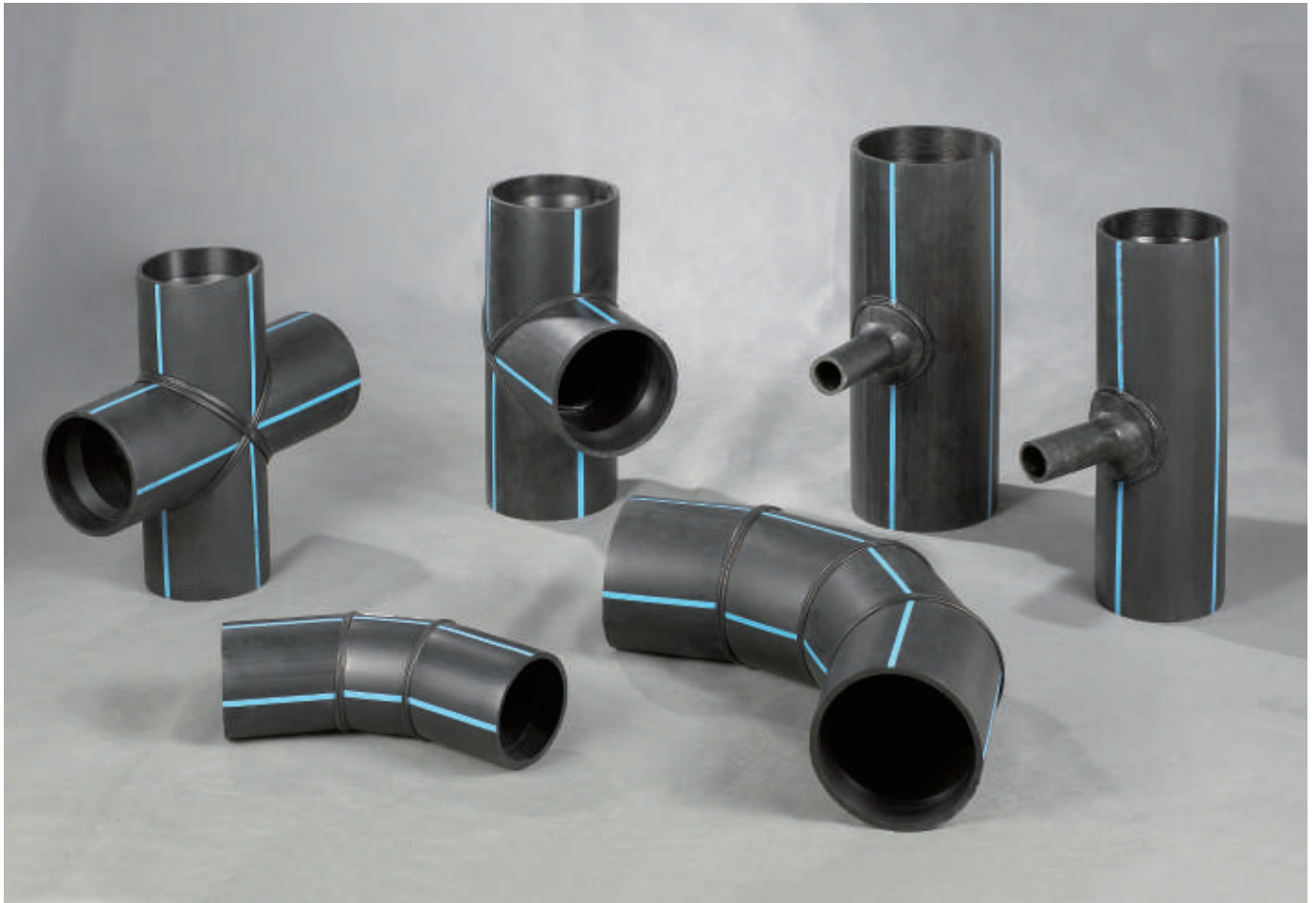


SAP Number (black)	Size (mm)	L	L1	PCS/CTN
8010043075	110	88	85	

E/F Flange (Steel Tray)



SAP Number (black)	Size (mm)	N	D1	D	L	PCS/CTN
8010043104	50	4	18	75	10	
8010043105	63	4	18	82.5	12	
8010043106	75	4	18	92.5	15	
8010042113	90	8	19	100	15	
8010040267	110	8	18	180	22	3
8010040268	160	8	22	240	24	1
8010040269	200	12	22	295	26	1
8010040270	250	12	26	355	29	1
8010040271	315	12	26	410	32	1
8010040273	400	16	30	525	36	1
8010040274	500	20	33	650	44	
8010043076	630	20	36	770	54	



■ Features

Material: PE 100

Size: full 110mm through 800mm availability

Pressure Rating: 0.6MPa, 1.0MPa, 1.6MPa or other nominal pressures available upon request

Standard: ISO 4427-3 EN 12201-3 BS EN 12201-3 BS 6920

Color: blue, black with blue stripes or other colors available upon request

Angles: various angles available upon request

Joint: joining pipe and fabricated fittings by butt fusion joint

■ Advantages

Non-toxic: no heavy metal additives, would not be covered with dirt or contaminated by bacterium

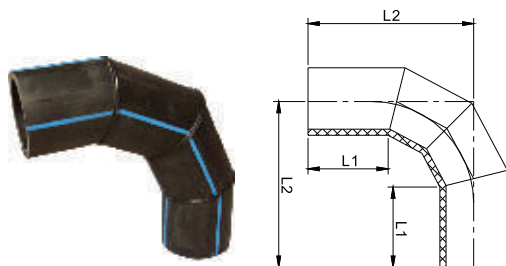
Corrosion Resistance: resist chemical matters and electron chemical corrosion

Low Installation Costs: light weight and ease of installation can reduce installation costs

High Flow Capacity: smooth interior walls result in low pressure loss and high volume

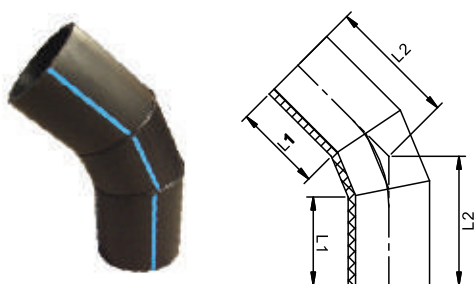
Longevity: more than 50 years under proper use

Fabricated 90° Elbow



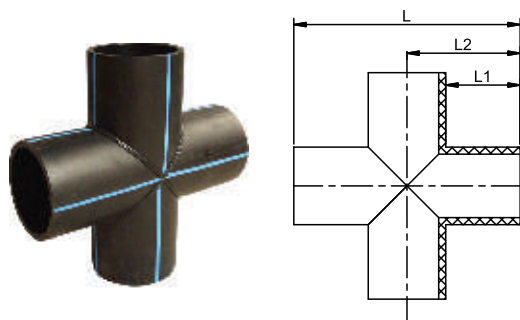
SAP Number (black)		Size (mm)	L1	L2	PCS/CTN
1.0MPa	1.25MPa				
-----	8010045010	355	345	835.7	
8010045003	8010045011	400	375	909.7	
8010045004	8010045012	450	405	985.2	
8010045005	8010045013	500	405	1086.2	
8010045006	8010045014	560	480	1197.1	
8010045007	8010045015	630	525	1304.5	
8010045008	8010045016	710	540	1414.1	
8010045009	8010045017	800	565	1552.4	

Fabricated 45° Elbow



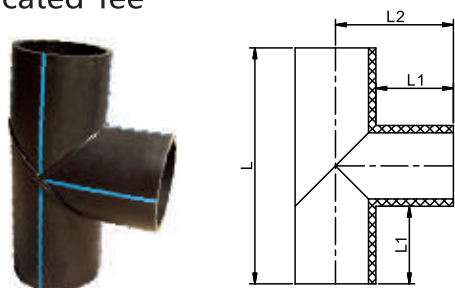
SAP Number (black)		Size (mm)	L1	L2	PCS/CTN
1.0MPa	1.25MPa				
8010044987	8010044995	355	525	525.9	
8010044988	8010044996	400	550	550.7	
8010044989	8010044997	450	581	581.4	
8010044990	8010044998	500	622	622.2	
8010044991	8010044999	560	697	697.8	
8010044992	8010045000	630	170	740.8	
8010044993	8010045001	710	791	791.3	
8010044994	8010045002	800	848	848.9	

Fabricated Cross



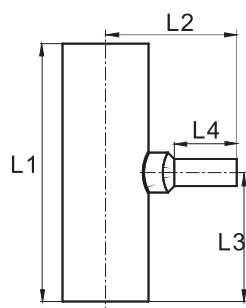
SAP Number (black)		Size (mm)	L1	L2	L	PCS/CTN
0.6MPa	0.8MPa					
8010045026	8010045035	250	250	375	750	
8010045027	8010045036	280	250	390	780	
8010045028	8010045037	315	300	457.5	915	
8010045029	8010045038	355	300	477.5	955	
8010045030	8010045039	400	300	500	1000	
8010045031	8010045040	450	300	525	1050	
8010045032	8010045041	500	350	600	1200	
8010045033	8010045042	560	350	630	1260	
8010045034	8010045043	630	350	665	1330	

Fabricated Tee



SAP Number (black)		Size (mm)	L1	L2	L	PCS/CTN
0.6MPa	0.8MPa					
8010045018	8010045022	450	300	500	1000	
8010045019	8010045023	500	300	525	1050	
8010045020	8010045024	560	350	600	1200	
8010045021	8010045025	630	350	665	1330	

Fabricated Reducing Tee

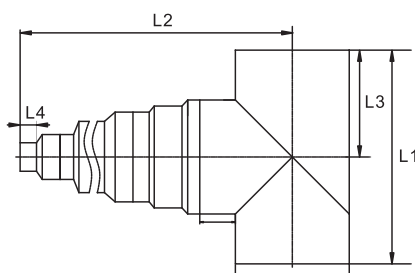


Note:

≤ dn630 specifications with 0.6、0.8MPa;
When pressure levels of the main pipe and
branch pipe are different, please indicate
when placing order and customize the
product.

SAP Number (black)		Size (mm)	L1	L2	L3	L4	PCS/CTN
0.6MPa	0.8MPa						
8010045044	8010045094	200×63	600	305	300	145	
8010045045	8010045095	200×75	600	325	300	145	
8010045046	8010045096	225×63	600	315	300	145	
8010045047	8010045097	225×75	600	337.5	300	155	
8010045048	8010045098	225×90	600	347.5	300	160	
8010045049	8010045099	225×110	600	357.5	300	155	
8010045050	8010045100	250×75	630	350	315	155	
8010045051	8010045101	250×90	630	360	315	155	
8010045052	8010045102	250×125	630	385	315	160	
8010045053	8010045103	280×63	670	345	335	145	
8010045054	8010045104	280×75	670	365	335	155	
8010045055	8010045105	280×90	670	375	335	155	
8010045056	8010045106	280×110	670	385	335	160	
8010045057	8010045107	280×125	670	400	335	160	
8010045058	8010045108	315×63	670	362.5	335	145	
8010045059	8010045109	315×75	670	382.5	335	155	
8010045060	8010045110	315×90	670	392.5	335	155	
8010045061	8010045111	315×125	670	417.5	335	160	
8010045062	8010045112	355×63	670	382.5	335	145	
8010045063	8010045113	355×75	670	402.5	335	155	
8010045064	8010045114	355×90	670	412.5	335	155	
8010045065	8010045115	355×110	670	422.5	335	160	
8010045066	8010045116	355×125	670	437.5	335	160	
8010045067	8010045117	355×160	670	447.5	335	160	
8010045068	8010045118	400×63	720	405	360	145	
8010045069	8010045119	400×75	720	425	360	155	
8010045070	8010045120	400×90	720	435	360	155	
8010045071	8010045121	400×110	720	445	360	160	
8010045072	8010045122	400×125	720	460	360	160	
8010045073	8010045123	400×160	720	470	360	160	
8010045074	8010045124	450×63	720	430	360	145	
8010045075	8010045125	450×75	720	450	360	155	
8010045076	8010045126	450×90	720	460	360	155	
8010045077	8010045127	450×110	720	470	360	160	
8010045078	8010045128	450×125	720	485	360	160	
8010045079	8010045129	450×160	720	495	360	160	
8010045080	8010045130	500×63	760	455	380	145	
8010045081	8010045131	500×75	760	475	380	155	
8010045082	8010045132	500×90	760	485	380	155	
8010045083	8010045133	500×110	760	495	380	160	
8010045084	8010045134	500×125	760	510	380	160	
8010045085	8010045135	500×160	760	520	380	160	
8010045086	8010045136	560×110	760	525	380	160	
8010045087	8010045137	560×160	760	550	380	160	
8010045088	8010045138	630×63	760	520	380	145	
8010045089	8010045139	630×75	760	540	380	155	
8010045090	8010045140	630×90	760	550	380	155	
8010045091	8010045141	630×110	760	560	380	160	
8010045092	8010045142	630×125	760	575	380	160	
8010045093	8010045143	630×160	760	585	380	160	

Fabricated Reducing Tee Assembly



Note:

≤ dn315 specifications with 0.6, 0.8, 1.0, 1.6MPa
(200×50, 250×50, 315×50 only with 0.6, 0.8MPa);
dn355, 400 specifications with 0.6, 0.8, 1.0MPa
(355×50, 400×50 only with 0.6, 0.8MPa);

≥ dn450 specifications with 0.6, 0.8MPa;

When pressure levels of the main pipe and branch pipe are different, please indicate when placing order and customize the product.

SAP Number (black)				Size (mm)	L1	L2	L3	L4	PCS/CTN
0.6MPa	0.8MPa	1.0MPa	1.6MPa						
8010045144	8010045201	—	—	200×50	600	346.5	300	25	
8010045149		8010041138	8010041316	200×125	426	435	213	90	
8010045150		8010041145	8010041317	225×125	530	675	265	75	
8010045151	8010042488	8010041146	8010041318	225×160	530	485	265	80	
8010045152	8010042489	8010041147	8010041319	225×200	530	460	265	85	
8010045145	8010045202	—	—	250×50	630	359.6	315	25	
8010045153	8010042494	8010041309	8010043352	250×200	600	526	300	84.8	
8010045154	8010042495	8010041156	8010041258	250×225	600	495	300	90	
8010045155	8010042498	8010041163	8010044860	280×160	632	800	316	80	
8010045156	8010042499	8010041536	8010044857	280×200	632	791	316	84.8	
8010045146	8010045203	—	—	315×50	670	385.3	335	25	
8010045157	8010042504	8010042625	8010041990	315×225	710	570	355	90	
8010045158	8010042505	8010041174	8010041274	315×250	710	585	355	88	
8010045159	8010042506	8010041175	8010041275	315×280	710	585	355	88	
8010045147	8010045204	—	—	355×50	670	405.3	355	25	
8010045160		8010043403	—	355×180	660	795	330	80	
8010045161	8010042509	8010041183	—	355×200	660	602	330	75	
8010045162		8010043405	—	355×225	660	750.2	330	90	
8010045163	8010042510	8010041185	—	355×250	660	560	330	77	
8010045164		8010041601	—	355×280	660	729.2	330	85	
8010045165	8010042511	8010043426	—	355×315	660	535.2	330	85	
8010045148	8010045205	—	—	400×50	720	427.2	360	25	
8010045166	8010042514	8010041395	—	400×200	715	612.5	357.5	70	
8010045167	8010042515	8010041438	—	400×225	715	781.5	357.5	90	
8010045168	8010042516	8010041436	—	400×250	715	579.6	357.5	75	
8010045169		8010041194	—	400×280	715	562.3	357.5	77	
8010045170	8010042518	8010041556	—	400×355	715	-	357.5	-	

Fabricated Reducing Tee Assembly

SAP Number (black)		Size (mm)	L1	L2	L3	L4	PCS/CTN
0.6MPa	0.8MPa						
8010045171	8010045206	450×180	1050	864	525	90	
8010045172	8010045207	450×200	1050	669	525	65	
8010045173	8010045208	450×225	1050	750.6	525	90	
8010045174	8010045209	450×250	1050	631.5	525	77	
8010045175	8010045210	450×280	1050	-	525	-	
8010045176	8010045211	450×315	1050	544	525	37	
8010045177	8010045212	450×355	1050	685	525	97	
8010045178	8010045213	450×400	1050	685	525	97	
8010045179	8010045214	500×180	1200	1236	600	90	
8010045180	8010045215	500×200	1200	1041	600	95	
8010045181	8010045216	500×225	1200	1044	600	100	
8010045182	8010045217	500×250	1200	1004	600	88	
8010045183	8010045218	500×280	1200	960	600	85	
8010045184	8010045219	500×315	1200	765	600	95	
8010045185	8010045220	500×355	1200	765	600	95	
8010045186	8010045221	500×400	1200	765	600	95	
8010045187	8010045222	500×450	120	765	600	130	
8010045188	8010045223	560×225	1260	1280	630	100	
8010045189	8010045224	560×280	1260	1195	630	85	
8010045190	8010045225	560×315	1260	1000	630	95	
8010045191	8010045226	630×180	1330	1605	665	90	
8010045192	8010045227	630×200	1330	1410	665	115	
8010045193	8010045228	630×225	1330	1410	665	100	
8010045194	8010045229	630×250	1330	1364	665	88	
8010045195	8010045230	630×280	1330	1325	665	85	
8010045196	8010045231	630×315	1330	1130	665	95	
8010045197	8010045232	630×355	1330	1130	665	95	
8010045198	8010045233	630×400	1330	1130	665	95	
8010045199	8010045234	630×450	1330	1130	665	130	
8010045200	8010045235	630×500	130	865	665	100	

Pipe Cutter



SAP Number	Model	Application Range
8010041504	TU 140	50~140
8010041505	T3	100~160
	T4	180~315

Blade Scraper



SAP Number	Model	Application Range
8010041502	Small Scraper	1.5"
8010041503	Big Scraper	2.0"

Rotation Scraper



SAP Number	Model	Application Range
8010042738	RTC160	50~160
	RTC315	75~315

Socket Fusion
Welding Machine

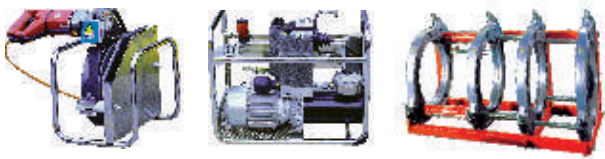
SAP Number	Model	Application Range
8010041418	1000w	20~63
8010041419	1600w	75~110
8010041420	2500w	160

Melting Socket



SAP Number	Model	Application Range
8010040972		20
8010040973		25
8010040974		32
8010040975		40
8010040976		50
8010040977		63
8010040978		75
8010040979		90
8010040970		110
8010040971		160

Butt Fusion Welding Machine



SAP Number	Model	Application Range
8010041410	160	63~160
8010041411	250	90~250
8010041382	250	110~250
8010041553	315	160~315
	450	280~450
	630	400~630
	800	630~800
	1200	900~1200

Electro Fusion Welding Machine



SAP Number	Model	Application Range
8010041972	DRJ-CA-9C	
8010042745	DRJ-CA-15C	

It can save the data and the data can be printed when connecting to the computer.

3.1 Corrosion resistance.

3.2 No leaks in the fusion weld joint. PE pipe are mainly used fusion weld joint to ensure the identity of the material, structure of the fittings and the pipe.

3.3 The great technical and economic value of the flexibility of PE piping system. Mainly as below:

3.3a PE pipe can be coiled due to it's excellent flexibility, can be supplied with long length, avoiding the mass usage of joint and fittings, reducing the workload of joint. By considering the practicality, our company can supplied coiled PE pipe if the diameter not more than 63mm.



3.3b For reducing workload of joint, PE pipe in large diameter can be joint on the ground (outside the groove) before devoted into the groove.



3.3c Directional drilling technique can be used in the joint of the PE pipe in some places due to it's flexibility, lightweight and excellent scratch resistance. Suitable place includes the road, base of the railroad, river, etc.



3.3d Submerge the long pipe when laying the PE pipe in the river or lake. Connect the pipe on the fixed location before the pipes are submerged with heavy articles.



3.3e Repair the old urban water supply pipe by PE pipe as the lined pipe.



3.4 Effective resist the underground movement and the point load. PE pipe has excellent flexibility and strong differential settlement resistance, the extension rate at break has exceeds 350%.

3.5 Excellent resistance to fast crack propagation.

3.6 Long service life. The PE pipe can be used for more than 50 years under proper use.

3.7 Environment-friendly. PE pipe can be recycled. It won't produce harmful matter to the environment even burn it out.

(1) Socket Fusion Joint Step: (Use Socket Fusion Welding Machine)**① Check and measure**

- Check the pipe and fittings to see whether they are damaged, and make the incision smooth.
- Measure the depth of socket, mark on the pipe surface.

**② Chamfer**

- Chamfer the nozzle, the angle should be 30°, the length of surface groove should not exceed 2.0mm.

**③ Clean and dry**

- Clean and dry the pipe's spigot and the fittings' socket.

**④ Heat**

- Push the end of the pipe and fittings, without turning, upto the welding depth into the welding machine, heat up the end of the pipe and fittings.

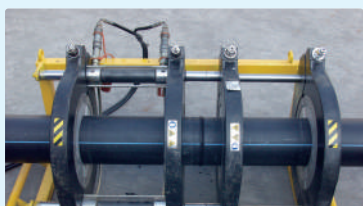
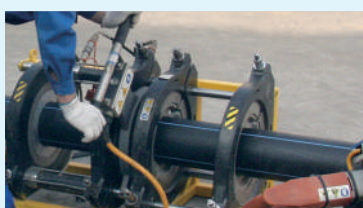
**⑤ Join and cool**

- Pull out the pipe and fittings from the welding machine when the scheduled heating is over, insert the pipe's spigot into the fittings' socket evenly and swiftly.
- Not continue the next step until the scheduled cooling is over.

Recommended technical parameter for Socket Fusion Joint

(Thermal temperature is 260°C±°C)

Outer Diameter (mm)	Heating Time(s)	Maximum Transit Time (s)	Minimum Cooling Time (s)
20	5	4	2
25	7	4	2
32	8	6	4
40	12	6	4
50	18	6	4
63	24	8	6

(2) Butt Fusion Joint Step: (Use Butt Fusion Welding Machine)**① Prepare**

- Prepare the necessary tools.

② Clamp and clean

- Clamp down the pipe on the jig, clean up the joint parts, mill the joint sides, and then adjust the joint parts to make the misplacement less than 10% of the wall thickness.

③ Heat

- Put the heating panel.

④ Join

- Remove the heating panel after finishing heating, join the two heating parts swiftly, increase pressure up to the fusion-joint pressure and keep until it cools down.

⑤ Complete

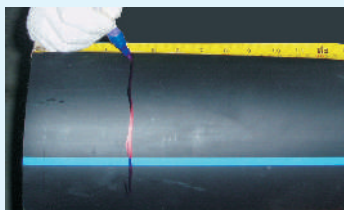
- Butt Fusion Joint is completed.

Recommended welding parameter, which should be followed by the welders

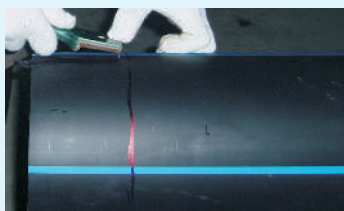
Wall Thickness (mm)	Preheating Curling Height (mm) (Preheating Temperature is $210 \pm 10^\circ\text{C}$)	Preheating Time(s) (Temperature is $210 \pm 10^\circ\text{C}$)	Allowed Maximum Transit Time(s)	Cooling Time for the Weld Seam under Pressure-reserving State (min)
2.0 - 3.9	0.5	30 - 40	4	4 - 5
4.3 - 6.9	0.5	40 - 70	5	6 - 10
7.0 - 11.4	1.0	70 - 120	6	10 - 16
12.2 - 18.2	1.0	120 - 170	8	17 - 24
20.1 - 25.5	1.5	210 - 250	10	25 - 32
28.3 - 32.2	1.5	280 - 320	12	33 - 40

Application of Butt Fusion Joint at Sites



(3) Electro Fusion Joint Step: (Use Electro Fusion Welding Machine)**① Clean and mark**

- Clean up the connection part, mark the inserting depth.

**② Scrape**

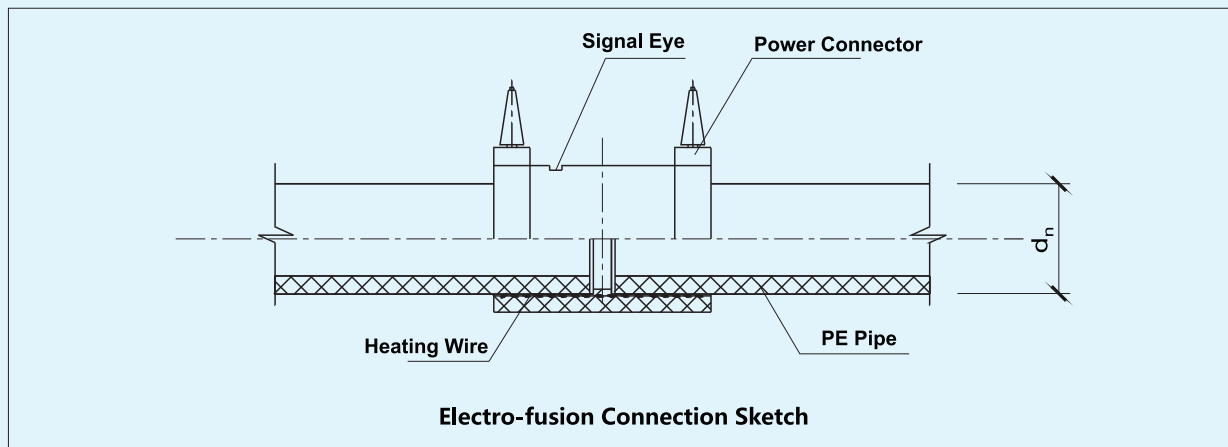
- Scrape and polish the joint surface.

**③ Align and restrain the fittings to the pipes****④ Apply electric current**

- Apply the electric current to the fittings; the joining parts will be heated and melted, turn off the current when there is melt flowing in the observation hole.

**⑤ Cool**

- Cool without movement or pressure.



Note: While connecting, the heating voltage and time should comply with manufacture's technical stipulations of Electro Fusion Welding Machine.

(4) Transition Joint

Join the PE pipe and the iron pipe by Flange Joint

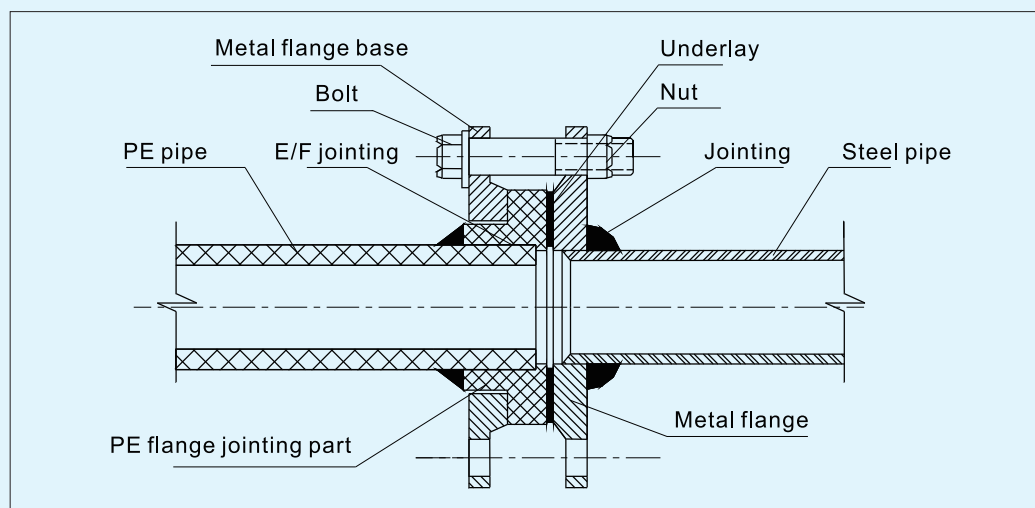
① Preparation

- Prepare the necessary tools and accessories.
- Check and clean the accessories.

② Put the pipe in the flange tray.

③ Use socket fusion joint or butt fusion joint on the pipe and the flange stub.

④ Put the rubber ring between the two flange stubs, and then tighten the bolts.

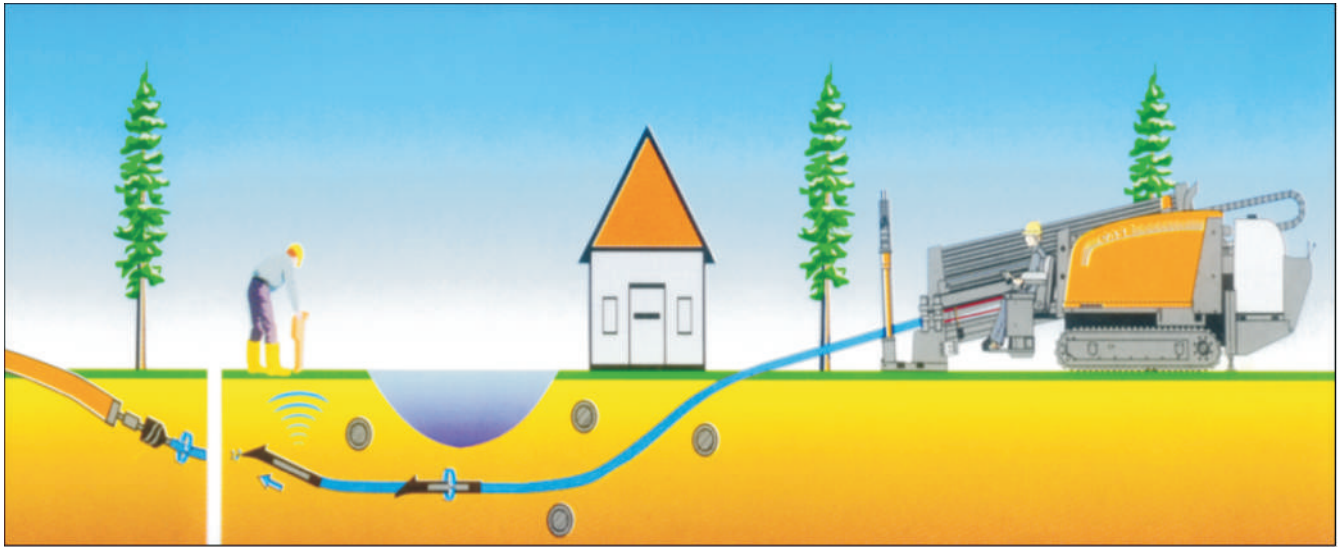


Trenchless Technology

The technology of detecting, laying, repairing and changing various kinds of pipe by no excavation or less excavation.

Horizontal Directional Drilling Technology

The installation technology of directional drilling, chambering and pulling the pipe from different depth and different stratum by using the directional drilling equipments and location apparatus.



PE Pipe and Fittings_BS EN 12201-2;2011,BS EN 12201-3;2011

PE Pipe and Fittings_ISO 4427-2;2007,ISO 4427-3;2007


FACTORY APPROVAL CERTIFICATE

Certificate No.: FA-IPC/SR/IPCA-22/006-01

Name of the factory: Guangdong Liansu Technology Industrial Co., Ltd.
Address of the factory: Liansu Industrial Estate, Longjiang Town, Shunde Zone, Foshan City, Guangdong, P. R. China
Type(s) of product manufactured: PE PIPES & FITTINGS FOR WATER SUPPLY
Applying standards: ISO 4427-2: 2007(Pipe), ISO 4427-3:2007(Fitting)
After examination of the following documents:
- Quality System Certificate n° (ISO9001:2015): 0070021Q53207R7L
(Valid from 2021-07-30 to 2024-07-29)
- Factory Audit Report n° FR-IPC/SR/IPCA-22/006-01

The undersigned, inspector of Bureau Veritas, certifies that the above factory meets the applicable requirements of BV procedure GM-VPC for the production of the following types of pipes & fittings listed in Annex I to Certificate.

This certificate is valid from **Oct. 01st, 2022**
For a period of three years, ending **Sep. 30th, 2025**

This approval is only valid provided that every semi-annual audit (in annex) is done and found satisfactory by Bureau Veritas, and when no significant changes are made to the audited facility, its production rate and its quality system. These conditions will be assessed during semi-annual audits.

This approval is an integral and indissociable part of the voluntary certification process of pipes & fittings by Bureau Veritas as defined in BV procedure GM-VPC.

Made at: Shanghai
On: Oct. 01st, 2022

Name & signature:
Mingsheng Xu
BV China INS Department Product Manager

Bureau Veritas Greater China, Industry and Facility Division
Address: 3F, No.1288, Wei Ma Road, Huangpu District, Shanghai, 200011, P. R. China
Tel: +86 21 2319 0001, 2319 0002, 2319 0003 Fax: +86 21 68861421


ANNEX I TO CERTIFICATE No. FA-IPC/SR/IPCA-22/006-01

- Name of the factory: Guangdong Liansu Technology Industrial Co., Ltd.
- Address of the factory: Liansu Industrial Estate, Longjiang Town, Shunde Zone, Foshan City, Guangdong, P. R. China
- Type of Product Manufactured: PE PIPES & FITTINGS FOR WATER SUPPLY
- Applying standards : ISO 4427-2: 2007(Pipe), ISO 4427-3:2007(Fitting)

Specification: Pipes : ISO 4427-2: 2007
DN 20-2000, PN4-PN25, PE100 & PE80
Fittings: ISO 4427-3:2007, PE100 & PE80
Socket fusion fittings (DN 20-125)
Electro fusion fittings (DN 20-630)
Butt fusion fittings (DN 20-630)
Fabricated Fittings (DN 90-900)

• Satisfactory audit of the above mentioned factory and issuance of the references report as per the Factory Approval Certificate.

This certificate is valid for 3 years (until **Sep. 30th, 2025**), providing that the semi-annual surveillance visits made by the society are satisfactory. After that period it shall be renewed in accordance with the Bureau Veritas Rules.

1 st Year Period:		2 nd Year Period:		3 rd Year Period:	
01/10/2022-31/03/2023	01/04/2023-30/09/2023	01/10/2023-31/03/2024	01/04/2024-30/09/2024	01/10/2024-31/03/2025	01/04/2025-30/09/2025
Sign & Stamp:	Sign & Stamp:	Sign & Stamp:	Sign & Stamp:	Sign & Stamp:	Sign & Stamp:

This inspection has been carried out within the scope of Bureau Veritas General Conditions; it does not release the seller from his contractual obligations towards the buyer.

Bureau Veritas Greater China, Industry and Facility Division
Address: 3F, No.1288, Wei Ma Road, Huangpu District, Shanghai, 200011, P. R. China
Tel: +86 21 2319 0001, 2319 0002, 2319 0003 Fax: +86 21 68861421


FACTORY APPROVAL CERTIFICATE

Certificate No.: FA-IPC/SR/IPCA-22/006-02

Name of the factory: Guangdong Liansu Technology Industrial Co., Ltd.
Address of the factory: Liansu Industrial Estate, Longjiang Town, Shunde Zone, Foshan City, Guangdong, P. R. China
Type(s) of product manufactured: PE PIPES & FITTINGS FOR WATER SUPPLY AND DRAINAGE /SEWERAGE UNDER PRESSURE
Applying standards: BS EN 12201-2: 2011(Pipe), BS EN 12201-3:2011(Fittings)
After examination of the following documents:
- Quality System Certificate n° (ISO9001:2015): 0070021Q53207R7L
(Valid from 2021-07-30 to 2024-07-29)
- Factory Audit Report n° FR-IPC/SR/IPCA-22/006-02

The undersigned, inspector of Bureau Veritas, certifies that the above factory meets the applicable requirements of BV procedure GM-VPC for the production of the following types of pipes & fittings listed in Annex I to Certificate.

This certificate is valid from **Oct. 01st, 2022**
For a period of three years, ending **Sep. 30th, 2025**

This approval is only valid provided that every semi-annual audit (in annex) is done and found satisfactory by Bureau Veritas, and when no significant changes are made to the audited facility, its production rate and its quality system. These conditions will be assessed during semi-annual audits.

This approval is an integral and indissociable part of the voluntary certification process of pipes & fittings by Bureau Veritas as defined in BV procedure GM-VPC.

Made at: Shanghai
On: Oct. 01st, 2022

Name & signature:
Mingsheng Xu
BV China INS Department Product Manager

Bureau Veritas Greater China, Industry and Facility Division
Address: 3F, No.1288, Wei Ma Road, Huangpu District, Shanghai, 200011, P. R. China
Tel: +86 21 2319 0001, 2319 0002, 2319 0003 Fax: +86 21 68861421


ANNEX I TO CERTIFICATE No. FA-IPC/SR/IPCA-22/006-02

- Name of the factory: Guangdong Liansu Technology Industrial Co., Ltd.
- Address of the factory: Liansu Industrial Estate, Longjiang Town, Shunde Zone, Foshan City, Guangdong, P. R. China
- Type of Product : PE PIPES & FITTINGS FOR WATER SUPPLY AND DRAINAGE /SEWERAGE UNDER PRESSURE
- Applying standards : BS EN 12201-2: 2011(Pipe), BS EN 12201-3:2011(Fittings)

Specification : Pipes : BS EN 12201-2: 2011
DN 20-2000, PN4-25, PE100
Fittings: BS EN 12201-3:2011, PE100 & PE80
Socket fusion fittings (DN 20-DN 125)
Electro fusion fittings (DN 20-DN 630)
Butt fusion fittings (DN 20-DN 630)
Fabricated Fittings (DN 90-DN 900)

• Satisfactory audit of the above mentioned factory and issuance of the references report as per the Factory Approval Certificate.

This certificate is valid for 3 years (until **Sep. 30th, 2025**), providing that the semi-annual surveillance visits made by the society are satisfactory. After that period it shall be renewed in accordance with the Bureau Veritas Rules.

1 st Year Period:		2 nd Year Period:		3 rd Year Period:	
01/10/2022-31/03/2023	01/04/2023-30/09/2023	01/10/2023-31/03/2024	01/04/2024-30/09/2024	01/10/2024-31/03/2025	01/04/2025-30/09/2025
Sign & Stamp:	Sign & Stamp:	Sign & Stamp:	Sign & Stamp:	Sign & Stamp:	Sign & Stamp:

This inspection has been carried out within the scope of Bureau Veritas General Conditions; it does not release the seller from his contractual obligations towards the buyer.

Bureau Veritas Greater China, Industry and Facility Division
Address: 3F, No.1288, Wei Ma Road, Huangpu District, Shanghai, 200011, P. R. China
Tel: +86 21 2319 0001, 2319 0002, 2319 0003 Fax: +86 21 68861421

WRAS PE Water Pipe(Black)(60°C)

Approval Number 2104518
Test Report: MA7191/T13

WRAS
APPROVED MATERIAL

Water Regulations Advisory Scheme Ltd.
Unit 13,
Wharf Road,
Pen y Fan Industrial Estate,
Cwmri,
Gwent,
NP23 4EG

20th April 2021

Guangdong Liansu Technology Industrial Co. Ltd.
Liansu Industrial Estate,
Longling Town,
Shunde Zone,
Foshan City,
Guangdong,
China

**WATER REGULATIONS ADVISORY SCHEME LTD. (WRAS)
MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6820-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

POLYETHYLENE- COMPONENTS. 5240

LSPE-BK001: Black coloured, extruded polyethylene pipe. For use with water up to 60°C.

APPROVAL NUMBER: 2104518
APPROVAL HOLDER: GUANGDONG LIANSU TECHNOLOGY INDUSTRIAL CO. LTD.

The Scheme reserves the right to review approval.
Approval 2104518 is valid between April 2021 and April 2028

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, 'Materials which have passed full tests of effect on water quality'.

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours faithfully



Ian Hughes
WRAS Approvals Manager

The Water Regulations Advisory Scheme Ltd. Registered in England No. 08663030 Registered office: 42 Levels Close Haver Gwent Newport Gwent NP23 4EG
WRAS App 20471 ver 1.0 Tel: +44(0)1293 307 900 Fax: +44(0)149 309 340 Email: enquiries@wras.co.uk website: www.wras.co.uk Page 1 of 2

WRAS MATERIAL APPROVAL - MATERIALS WHICH HAVE PASSED FULL TESTS OF EFFECT ON WATER QUALITY

The material referred to in this letter is suitable for contact with water for domestic purposes. Approval of this material does not signify the approval of its mechanical or physical properties for any use.

Manufacturers or applicants may only quote in their sales literature terms which are used in this letter, namely that; 'the material as listed, having passed the tests of effect on water quality, is suitable for use in contact with wholesome water'

This may be abbreviated to 'Water Regulations Advisory Scheme - Approved Material' or 'WRAS Approved Material'.

The scope of an Approval does not extend to rebranded materials unless otherwise agreed by the Scheme.

Use of the WRAS Approved Material Logo

Approval holders may use the WRAS Approved Material logo and make reference to any approval issued by WRAS Ltd. in respect of a particular material or range of materials provided the approval is, and remains valid.

Approval holders are entitled to use the logo on the packing, promotional literature and point of sale advertising Approved Materials.

Modifications to existing Approvals

It is a condition of WRAS Material Approval that NO changes or modifications to the Approved Material, be made without the Approval Holder first notifying WRAS Ltd. Full details of the proposed changes must be provided to the Scheme. Failure to comply with this condition will immediately invalidate a previously granted Approval.

Re-Approval

WRAS will write to you 1 year before the approval expires asking whether you would like to renew it. Please complete the relevant section of the MA3 application form which will be included with the letter and return to WRAS (via e-mail or post).

Please note it is the responsibility of the Approval Holder to ensure the Approval remains valid. WRAS Ltd. accepts no liability for the delay in granting approval where this is caused by circumstances outside of the Scheme's control.

The Water Regulations Advisory Scheme Ltd. Registered in England No. 08663030 Registered office: 42 Levels Close Haver Gwent Newport Gwent NP23 4EG
WRAS App 20471 ver 1.0 Tel: +44(0)1293 307 900 Fax: +44(0)149 309 340 Email: enquiries@wras.co.uk website: www.wras.co.uk Page 2 of 2

WRAS PE Water Pipe Fittings(Black)(60°C)

Approval Number 2111590
Test Report: MA7191/T14

WRAS
APPROVED MATERIAL

Water Regulations Advisory Scheme Ltd.
Unit 13,
Wharf Road,
Pen y Fan Industrial Estate,
Cwmri,
Gwent,
NP23 4EG

20th April 2021

Guangdong Liansu Technology Industrial Co. Ltd.
Liansu Industrial Estate,
Longling Town,
Shunde Zone,
Foshan City,
Guangdong,
China

**WATER REGULATIONS ADVISORY SCHEME LTD. (WRAS)
CONSECUTIVE MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6820-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

POLYETHYLENE- COMPONENTS. 5240

LSPE-BK001: Black coloured, injection moulded polyethylene fitting. For use with water up to 60°C.

APPROVAL NUMBER: 2111590
APPROVAL HOLDER: GUANGDONG LIANSU TECHNOLOGY INDUSTRIAL CO. LTD.

This is a re-approval of 1810548 which is valid between October 2016 and October 2021.

The Scheme reserves the right to review approval.
Approval 2111590 is valid between November 2021 and November 2028

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, 'Materials which have passed full tests of effect on water quality'.

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours faithfully



Ian Hughes
WRAS Approvals Manager

The Water Regulations Advisory Scheme Ltd. Registered in England No. 08663030 Registered office: 42 Levels Close Haver Gwent Newport Gwent NP23 4EG
WRAS App 20471 ver 1.0 Tel: +44(0)1293 307 900 Fax: +44(0)149 309 340 Email: enquiries@wras.co.uk website: www.wras.co.uk Page 1 of 2

WRAS MATERIAL APPROVAL - MATERIALS WHICH HAVE PASSED FULL TESTS OF EFFECT ON WATER QUALITY

The material referred to in this letter is suitable for contact with water for domestic purposes. Approval of this material does not signify the approval of its mechanical or physical properties for any use.

Manufacturers or applicants may only quote in their sales literature terms which are used in this letter, namely that; 'the material as listed, having passed the tests of effect on water quality, is suitable for use in contact with wholesome water'

This may be abbreviated to 'Water Regulations Advisory Scheme - Approved Material' or 'WRAS Approved Material'.

The scope of an Approval does not extend to rebranded materials unless otherwise agreed by the Scheme.

Use of the WRAS Approved Material Logo

Approval holders may use the WRAS Approved Material logo and make reference to any approval issued by WRAS Ltd. in respect of a particular material or range of materials provided the approval is, and remains valid.

Approval holders are entitled to use the logo on the packing, promotional literature and point of sale advertising Approved Materials.

Modifications to existing Approvals

It is a condition of WRAS Material Approval that NO changes or modifications to the Approved Material, be made without the Approval Holder first notifying WRAS Ltd. Full details of the proposed changes must be provided to the Scheme. Failure to comply with this condition will immediately invalidate a previously granted Approval.

Re-Approval

WRAS will write to you 1 year before the approval expires asking whether you would like to renew it. Please complete the relevant section of the MA3 application form which will be included with the letter and return to WRAS (via e-mail or post).

Please note it is the responsibility of the Approval Holder to ensure the Approval remains valid. WRAS Ltd. accepts no liability for the delay in granting approval where this is caused by circumstances outside of the Scheme's control.

The Water Regulations Advisory Scheme Ltd. Registered in England No. 08663030 Registered office: 42 Levels Close Haver Gwent Newport Gwent NP23 4EG
WRAS App 20471 ver 1.0 Tel: +44(0)1293 307 900 Fax: +44(0)149 309 340 Email: enquiries@wras.co.uk website: www.wras.co.uk Page 2 of 2

WRAS PE Water Pipe(Deep Blue)(60°C)

Approval Number 2110500
Test Report: MA7191/T1

WRAS
APPROVED MATERIAL

Water Regulations Advisory Scheme Ltd.
Unit 13,
Witney Road,
Pen y Fân Industrial Estate,
Cwmri, Gwent,
NP11 4EG

20th April 2021
Guangdong Liansu Technology Industrial Co. Ltd.
Liansu Industrial Estate,
Longling Town,
Shunde Zone,
Foshan City,
Guangdong,
China

**WATER REGULATIONS ADVISORY SCHEME LTD. (WRAS)
CONSECUTIVE MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6820-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

POLYETHYLENE - COMPONENTS. 5240

1.5PE-GE002 PE Pipe (Deep Blue), Blue coloured, extruded polyethylene pipe. For use with water up to 60°C.

APPROVAL NUMBER: 2110500
APPROVAL HOLDER: GUANGDONG LIANSU TECHNOLOGY INDUSTRIAL CO. LTD.

This is a re-approval of 1609522 which is valid between September 2016 and September 2021.

The Scheme reserves the right to review approval.
Approval 2110500 is valid between October 2021 and October 2026.

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, 'Materials which have passed full tests of effect on water quality'.

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully


Ian Hughes
WRAS Approvals Manager

The Water Regulations Advisory Scheme Ltd. Registered in England No. 0868300 Registered office: 42 Levels Close Haverhill Grove Stockport SK7 6ED
WRAS App: 2047 v1.0 Tel: +44(0)1273 207 920 Fax: +44(0)1273 207 940 Email: enquiries@wras.co.uk website: www.wras.co.uk Page 1 of 2

WRAS MATERIAL APPROVAL - MATERIALS WHICH HAVE PASSED FULL TESTS OF EFFECT ON WATER QUALITY

The material referred to in this letter is suitable for contact with water for domestic purposes. Approval of this material does not signify the approval of its mechanical or physical properties for any use.

Manufacturers or applicants may only quote in their sales literature terms which are used in this letter, namely that: 'the material as listed, having passed the tests of effect on water quality, is suitable for use in contact with wholesome water'.

This may be abbreviated to 'Water Regulations Advisory Scheme - Approved Material' or 'WRAS Approved Material'.

The scope of an Approval does not extend to rebranded materials unless otherwise agreed by the Scheme.

Use of the WRAS Approved Material Logo

Approval holders may use the WRAS Approved Material logo and make reference to any approval issued by WRAS Ltd. in respect of a particular material or range of materials provided the approval is, and remains valid.

Approval holders are entitled to use the logo on the packing, promotional literature and point of sale advertising Approved Materials.

Modifications to existing Approvals

It is a condition of WRAS Material Approval that NO changes or modifications to the Approved Material, be made without the Approval Holder first notifying WRAS Ltd. Full details of the proposed changes must be provided to the Scheme. Failure to comply with this condition will immediately invalidate a previously granted Approval.

Re-Approval

WRAS will write to you 1 year before the approval expires asking whether you would like to renew it. Please complete the relevant section of the MA3 application form which will be included with the letter and return to WRAS (via e-mail or post).

Please note it is the responsibility of the Approval Holder to ensure the Approval remains valid. WRAS Ltd. accepts no liability for the delay in granting approval where this is caused by circumstances outside of the Scheme's control.

The Water Regulations Advisory Scheme Ltd. Registered in England No. 0868300 Registered office: 42 Levels Close Haverhill Grove Stockport SK7 6ED
WRAS App: 2047 v1.0 Tel: +44(0)1273 207 920 Fax: +44(0)1273 207 940 Email: enquiries@wras.co.uk website: www.wras.co.uk Page 2 of 2

WRAS PE Water Pipe Fittings(Deep Blue)(60°C)

Approval Number 2110501
Test Report: MA7191/T2

WRAS
APPROVED MATERIAL

Water Regulations Advisory Scheme Ltd.
Unit 13,
Witney Road,
Pen y Fân Industrial Estate,
Cwmri, Gwent,
NP11 4EG

20th April 2021
Guangdong Liansu Technology Industrial Co. Ltd.
Liansu Industrial Estate,
Longling Town,
Shunde Zone,
Foshan City,
Guangdong,
China

**WATER REGULATIONS ADVISORY SCHEME LTD. (WRAS)
CONSECUTIVE MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6820-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

POLYETHYLENE - COMPONENTS. 5240

1.5PE-GE002 PE Fitting (Deep Blue), Blue coloured, injection moulded polyethylene fitting. For use with water up to 60°C.

APPROVAL NUMBER: 2110501
APPROVAL HOLDER: GUANGDONG LIANSU TECHNOLOGY INDUSTRIAL CO. LTD.

This is a re-approval of 1609523 which is valid between September 2016 and September 2021.

The Scheme reserves the right to review approval.
Approval 2110501 is valid between October 2021 and October 2026.

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, 'Materials which have passed full tests of effect on water quality'.

The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully


Ian Hughes
WRAS Approvals Manager

The Water Regulations Advisory Scheme Ltd. Registered in England No. 0868300 Registered office: 42 Levels Close Haverhill Grove Stockport SK7 6ED
WRAS App: 2047 v1.0 Tel: +44(0)1273 207 920 Fax: +44(0)1273 207 940 Email: enquiries@wras.co.uk website: www.wras.co.uk Page 1 of 2

WRAS MATERIAL APPROVAL - MATERIALS WHICH HAVE PASSED FULL TESTS OF EFFECT ON WATER QUALITY

The material referred to in this letter is suitable for contact with water for domestic purposes. Approval of this material does not signify the approval of its mechanical or physical properties for any use.

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Approval holders are entitled to use the logo on the packing, promotional literature and point of sale advertising Approved Materials.

Modifications to existing Approvals

It is a condition of WRAS Material Approval that NO changes or modifications to the Approved Material, be made without the Approval Holder first notifying WRAS Ltd. Full details of the proposed changes must be provided to the Scheme. Failure to comply with this condition will immediately invalidate a previously granted Approval.

Re-Approval

WRAS will write to you 1 year before the approval expires asking whether you would like to renew it. Please complete the relevant section of the MA3 application form which will be included with the letter and return to WRAS (via e-mail or post).

Please note it is the responsibility of the Approval Holder to ensure the Approval remains valid. WRAS Ltd. accepts no liability for the delay in granting approval where this is caused by circumstances outside of the Scheme's control.

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WRAS App: 2047 v1.0 Tel: +44(0)1273 207 920 Fax: +44(0)1273 207 940 Email: enquiries@wras.co.uk website: www.wras.co.uk Page 2 of 2

GOST licence for PE water pipe

СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р
ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ

СЕРТИФИКАТ СООТВЕТСТВИЯ

№ РОСС С.Н.В63.Н01922
Срок действия с 26.04.2022 по 25.04.2025
№ 0495629

ОРГАН ПО СЕРТИФИКАЦИИ Общество с ограниченной ответственностью "НИЦ ТЕСТ", Место нахождения: 108801, город Москва, п. Коммунарка, ул. Потаповская Роща, д. 12 к. 2, этажное подл. 4 офис 14, Телефон: +79034451952, Адрес электронной почты: olenkarp@yandex.ru, Аттестат аккредитации регистрационный № RA.RU.11H863, Дата регистрации аттестата аккредитации: 15.01.2020 года

ПРОДУКЦИЯ Фитинги для бытового водоснабжения
См. Приложение (Бланк № 0095029, № 0095030, № 0095031)
Серийный выпуск: 229000

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ
Нормативной документации изготовителя: 391721

ИЗГОТОВИТЕЛЬ GUANGDONG LIANSU TECHNOLOGY INDUSTRIAL CO., LTD
Место нахождения: Lesso industrial estate, Longjiang town, Shunde District, Foshan City, Guangdong Province, China, 528318

СЕРТИФИКАТ ВЫДАН GUANGDONG LIANSU TECHNOLOGY INDUSTRIAL CO., LTD
Место нахождения: Lesso industrial estate, Longjiang town, Shunde District, Foshan City, Guangdong Province, China, 528318

НА ОСНОВАНИИ Протокол испытаний № 32311.ИЛ01.СС2566 от 25.04.2022 года. Испытательной лабораторией Общество с ограниченной ответственностью «АРТАЛИКС», Свидетельство об уполномочивании № ARTALIX.RU.32311.ИЛ01. Дата регистрации свидетельства: 05.10.2020 года

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ Схема сертификации: 3

Руководитель органа: С. О. Коваленко
Эксперт: Р. Н. Прокофьев

Свидетельство об уполномочивании № ARTALIX.RU.32311.ИЛ01. Дата регистрации свидетельства: 05.10.2020 года

GOST licence for PE water pipe fittings

СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р
ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ

СЕРТИФИКАТ СООТВЕТСТВИЯ

№ РОСС С.Н.В63.Н01924
Срок действия с 26.04.2022 по 25.04.2025
№ 0495626

ОРГАН ПО СЕРТИФИКАЦИИ Общество с ограниченной ответственностью "НИЦ ТЕСТ", Место нахождения: 108801, город Москва, п. Коммунарка, ул. Потаповская Роща, д. 12 к. 2, этажное подл. 4 офис 14, Телефон: +79034451952, Адрес электронной почты: olenkarp@yandex.ru, Аттестат аккредитации регистрационный № RA.RU.11H863, Дата регистрации аттестата аккредитации: 15.01.2020 года

ПРОДУКЦИЯ Фитинги для бытового водоснабжения
См. Приложение (Бланк № 0094892, № 009493, № 009494, № 009495, № 009496, № 009497, № 009498, № 009499, № 009500, № 009501, № 009502, № 009503, № 009504, № 009505, № 009506, № 009507, № 009508, № 009509, № 009510, № 009511, № 009512, № 009513, № 009514, № 009515, № 009516, № 009517, № 009518, № 009519, № 009520, № 009521, № 009522, № 009523, № 009524, № 009525, № 009526)
Серийный выпуск: 229000

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ
Нормативной документации изготовителя: 391740000

ИЗГОТОВИТЕЛЬ GUANGDONG LIANSU TECHNOLOGY INDUSTRIAL CO., LTD
Место нахождения: Lesso industrial estate, Longjiang town, Shunde District, Foshan City, Guangdong Province, China, 528318

СЕРТИФИКАТ ВЫДАН GUANGDONG LIANSU TECHNOLOGY INDUSTRIAL CO., LTD
Место нахождения: Lesso industrial estate, Longjiang town, Shunde District, Foshan City, Guangdong Province, China, 528318

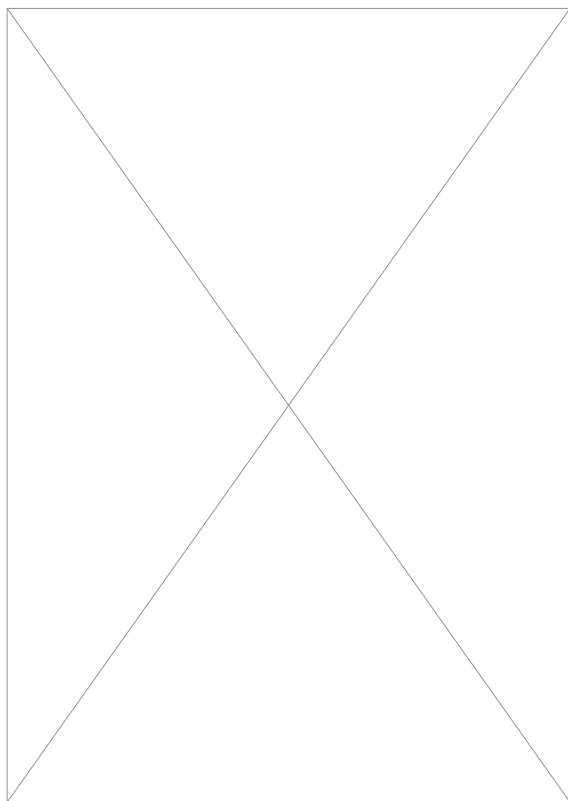
НА ОСНОВАНИИ Протокол испытаний № 32311.ИЛ01.СС2570 от 25.04.2022 года. Испытательной лабораторией Общество с ограниченной ответственностью «АРТАЛИКС», Свидетельство об уполномочивании № ARTALIX.RU.32311.ИЛ01. Дата регистрации свидетельства: 05.10.2020 года

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ Схема сертификации: 3

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CE certification for PE water pipe and fittings comply with EN 12201.





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