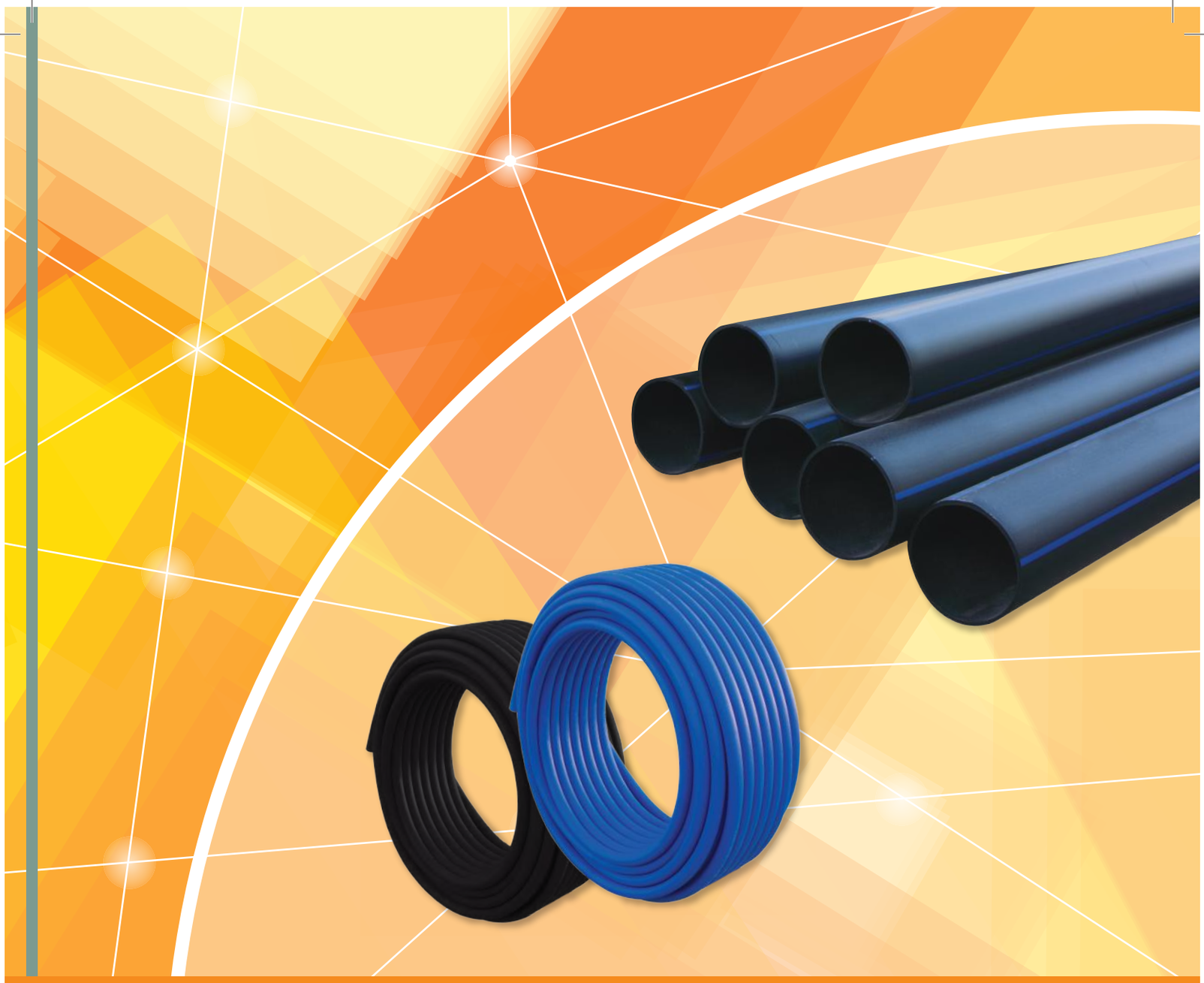
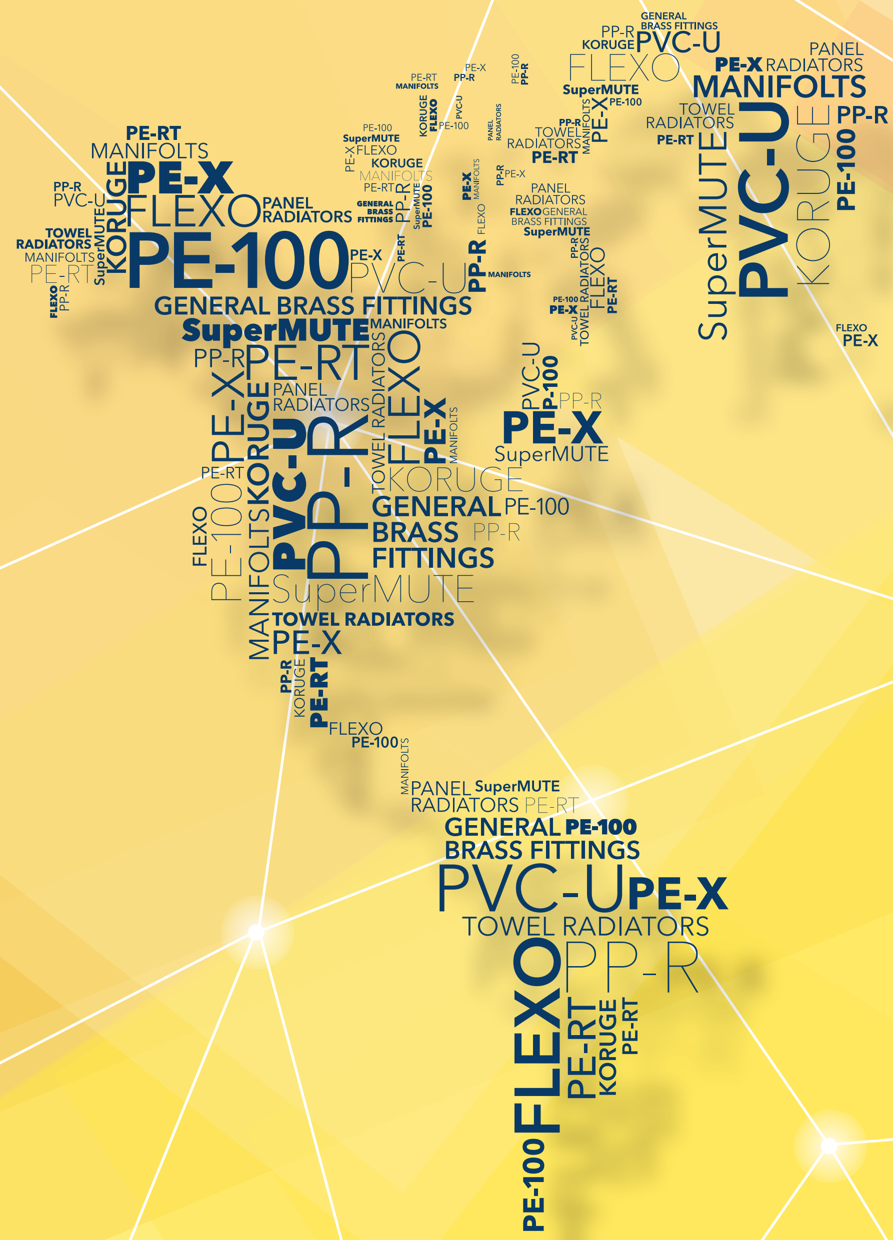


01.08.2022

HDPE Infrastructure Piping Systems

kalde®

First Choice



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Kalde is the “First Choice” all around the world.

Why Kalde?

Kalde produces high quality products, designs and develops integrated solutions for customers worldwide.

It is among the leading companies in production of pipes and fittings with its knowledge and expertise of more then 40 years.

The headquarters of the company is located in Istanbul where the continents of Asia and Europe meet.

Our strategical location at the junction of Europe, Asia and Africa together with a reliable supply chain give us unique advantages in providing our business partners and customers with high quality service as well as the competition in the global markets. Currently, our products are exported to more than 40 countries worldwide including Germany, Hungary, Romania, Austria, Greece, Bulgaria, Russia, Ukraine, Egypt, Syria, Lebanon, etc.

Kalde has product design, development and quality control facilities in 300.000 m^2.

Kalde produces a wide range of products including PP-R pipes, PP-R fittings, PP-R and brass valves, Al-pex & PE-RT pipes, screw fittings, press fittings, PE-X pipes and collectors. Kalde has internationally accredited certificates from respected organisations such as DVGW SKZ (Germany), CSTB (France) and AENOR (Spain). Furthermore, our management system has been certified by ISO.
We are proud of our high quality products and experiences...

Our vision is providing our customers with an increasingly wide portfolio of high quality products and solutions with continuous research and development.

Our goal is to develop long term partnerships with our customers and suppliers.

We create integrated solutions by team work as well as collaboration with our customers and partners.

Having market-focused teams of around 1500 professionals supported by a strong management, we offer our business partners and customers worldwide with value-adding solutions.

As result of these reasons, kalde® Kalde is the “First Choice” of the users worldwide

Kalde Value Commitment.

Kalde was established by four young engineers dedicated to provide customers with the best service in 1977.

This spirit is still alive and is the essence of our mission statement.

The Success of Kalde is the Result of Various Factors.

- **High quality** products.
- Utilization of best **practices.**
- Products meeting your **unique** requirements.
- **Proven** products.
- **Total** customer satisfaction.
- **Long term** relationships with each customer.
- A **dedicated** team of around 1500 professionals.

Contents

HDPE Infrastructure Piping Systems

Kalde Polyethylene Water Pipes

Kalde polyethylene pipes are produced the HDPE 100 raw material, For use in pressurized water mains lines.

HDPE Pipes Technical Specifications

- Kalde HDPE 100 pipes are manufactured according to standard 12201-2.
- UV stabilized raw materials to increase the strength of the sun's rays are used in the pipes.
- Pipes butt welding, electro fusion welding is suitable.
- The relevant pressure class produced pipes, pipes and joints after you merge at the apply test pressure, tear and does not leak.
- Pipe material, chemical resistance is high, is not affected by corrosion, decay, wear-resistant.
- Lightweight. laid quickly and easily.
- Welding properties are well.
- Flexible to be not affected by soil movements.
- Impact resistance are well.
- Kalde polyethylene pipes produced PN4, PN5, PN6, PN8, PN10, PN12.5, PN16, PN20, PN25 and DN20-DN630 diameter range.

Material	HDPE 100 (=PE-100)
Product Color	Black
Product Standard	EN 12201-2
Product Range	Ø20 - Ø630 mm
Pressure Class	PN4 - PN25
Pipe Dimensions	Ø20 - Ø125 (coil)
	Ø75 - Ø630 (6 - 11,8 pipe lenght)

Physical Properties	**Value**	**Unit**	**Test Method**
Density	0.950	g/cm³	ISO 1183
Melt flow index (190°/5kg)	0.23	g/10 sec.	ISO-1133
Mechanical Properties			
Yield strength (23°C v=50mm/min)	23	MPa	ISO 527-1-2
Yield elongation (23°C v=50mm/min)	9	%	ISO 527-1-2
Modulus of elasticity (23° v=1mm/min,secant)	900	MPa	ISO 527-1-2
Charpy Impact Strength (Notched)			
23°C	26	kj/m²	ISO 179
-30°C	13	kj/m²	ISO 179
Other Features			
Oxidation induction time (OIT) (at 210°C)	≥20	Sec.	EN 728
Ratio of carbon black	2,3±0,1	%	ISO 6964
Elongation at break	≥350	%	EN 638

PE-100 Size Table

SDR:41; PN 4			SDR:33; PN 5			SDR:26; PN 6			SDR:21; PN 8			SDR:17; PN 10		
DN/ mm	S/mm	Weight kg/m	DN/ mm	S/mm	Weight kg/m	DN/ mm	S/mm	Weight kg/m	DN/ mm	S/mm	Weight kg/m	DN/ mm	S/mm	Weight kg/m
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	32	2,0*	0.19
40	-	-	-	-	-	-	-	-	40	2,0*	0.24	40	2.4	0.30
50	-	-	-	-	-	50	2.0	0.31	50	2.4	0.37	50	3.0	0.45
63	-	-	63	2.0	0.40	63	2.5	0.49	63	3.0	0.58	63	3.8	0.72
75	-	-	75	2.3	0.55	75	2.9	0.68	75	3.6	0.83	75	4.5	1.02
90	2,3*	0.64	90	2.8	0.79	90	3.5	0.98	90	4.3	1.18	90	5.4	1.46
110	2.7	0.94	110	3.4	1.17	110	4.2	1.43	110	5.3	1.77	110	6.6	2.17
125	3.1	1.23	125	3.9	1.51	125	4.8	1.84	125	6.0	2.27	125	7.4	2.76
140	3.5	1.54	140	4.3	1.88	140	5.4	2.32	140	6.7	2.83	140	8.3	3.46
160	4.0	2.00	160	4.9	2.42	160	6.2	3.04	160	7.7	3.72	160	9.5	4.52
180	4.4	2.49	180	5.5	3.07	180	6.9	3.79	180	8.6	4.67	180	10.7	5.71
200	4.9	3.05	200	6.2	3.84	200	7.7	4.69	200	9.6	5.78	200	11.9	7.05
225	5.5	3.86	225	6.9	4.77	225	8.6	5.89	225	10.8	7.30	225	13.4	8.93
250	6.2	4.83	250	7.7	5.92	250	9.6	7.30	250	11.9	8.93	250	14.8	11.00
280	6.9	5.98	280	8.6	7.40	280	10.7	9.10	280	13.4	11.30	280	16.6	13.70
315	7.7	7.52	315	9.7	9.37	315	12.1	11.60	315	15.0	14.20	315	18.7	17.40
355	8.7	9.55	355	10.9	11.80	355	13.6	14.60	355	16.9	18.00	355	21.1	22.10
400	9.8	12.10	400	12.3	15.10	400	15.3	18.60	400	19.1	22.90	400	23.7	28.00
450	11.0	15.30	450	13.8	19.00	450	17.2	23.50	450	21.5	28.90	450	26.7	35.40
500	12.3	19.00	500	15.3	23.40	500	19.1	28.90	500	23.9	35.70	500	29.7	43.80
560	13.7	23.60	560	17.2	29.40	560	21.4	36.20	560	26.7	44.70	560	33.2	54.80
630	15.4	29.90	630	19.3	37.10	630	24.1	45.90	630	30.0	56.30	630	37.4	69.40
710	17.4	38.00	710	21.8	47.20	710	27.2	58.33	710	33.9	71.70	710	42.1	88.00
800	19.6	48.10	800	24.5	59.70	800	30.6	73.85	800	38.1	90.90	800	47.4	112.00
900	22.0	60.90	900	27.6	75.60	900	34.4	93.40	900	42.9	115.00	900	53.3	141.00
1000	24.5	75.20	1000	30.6	93.10	1000	38.2	115.20	1000	47.7	142.10	1000	59.3	175.00
1200	29.4	108.00	1200	36.7	134.00	1200	45.9	165.90	1200	57.2	204.50	1200	70.6	247.10
1400	34.3	147.00	1400	42.9	183.00	1400	53.5	225.70	1400	66.7	278.10	1400	82.4	336.30
1600	39.2	192.00	1600	49.0	238.00	1600	61.2	295.00	1600	76.2	361.90	1600	94.1	430.20

* The s value calculated according to ISO 4065 is rounded to the nearest 2.0, 2.3, or 3.0.

\- For SDR groups not included in the table, the wall thicknesses are found by the calculation method.

Values found by the calculation method.

SDR : Standard aspect ratio (outer diameter / wall thickness)

DN : Nominal diameter

S : Wall thickness

HDPE Infrastructure Piping Systems

SDR:13,6; PN 12,5			SDR:11; PN 16			SDR:9; PN 20			SDR:7,4; PN 25			SDR:6; PN 32		
DN/mm	S/mm	Weight kg/m	DN/mm	S/mm	Weight kg/m	DN/mm	S/mm	Weight kg/m	DN/mm	S/mm	Weight kg/m	DN/mm	S/mm	Weight kg/m
-	-	-	-	-	-	16	2,0*	0.09	16	2,3*	0.10	16	3,0*	0.14
-	-	-	20	2,0*	0.11	20	2.3	0.13	20	3,0*	0.16	20	3.4	0.18
25	2,0*	0.14	25	2.3	0.17	25	3,0*	0.27	25	3.5	0.24	25	4.2	0.28
32	2.4	0.23	32	3,0*	0.27	32	3.6	0.33	32	4.4	0.39	32	5.4	0.45
40	3.0	0.36	40	3.7	0.43	40	4.5	0.51	40	5.5	0.60	40	6.7	0.70
50	3.7	0.55	50	4.6	0.66	50	5.6	0.79	50	6.9	0.94	50	8.3	1.09
63	4.7	0.87	63	5.8	1.05	63	7.1	1.26	63	8.6	1.47	63	10.5	1.73
75	5.6	1.24	75	6.8	1.47	75	8.4	1.76	75	10.3	2.09	75	12.5	2.44
90	6.7	1.77	90	8.2	2.12	90	10.1	2.54	90	12.3	3.00	90	15.0	3.51
110	8.1	2.62	110	10.0	3.14	110	12.3	3.78	110	15.1	4.50	110	18.3	5.24
125	9.2	3.37	125	11.4	4.10	125	14.0	4.87	125	17.1	5.77	125	20.8	6.75
140	10.3	4.22	140	12.7	5.10	140	15.7	6.11	140	19.2	7.25	140	23.3	8.47
160	11.8	5.50	160	14.6	6.70	160	17.9	7.96	160	21.9	9.44	160	26.6	11.00
180	13.3	6.98	180	16.4	8.40	180	20.1	10.10	180	24.6	11.90	180	29.9	14.00
200	14.7	8.56	200	18.2	10.40	200	22.4	12.40	200	27.4	14.80	200	33.2	17.20
225	16.6	10.90	225	20.5	13.10	225	25.2	15.80	225	30.8	18.60	225	37.4	21.80
250	18.4	13.40	250	22.7	16.20	250	27.9	19.40	250	34.2	23.00	250	41.5	27.00
280	20.6	16.80	280	25.4	20.30	280	31.3	24.30	280	38.3	28.90	280	46.5	33.80
315	23.2	21.20	315	28.6	25.60	315	35.2	30.80	315	43.1	36.50	315	52.3	42.70
355	26.1	26.90	355	32.2	32.50	355	39.7	39.10	355	48.5	46.30	355	59.0	54.30
400	29.4	34.10	400	36.3	41.30	400	44.7	49.60	400	54.7	58.80	400	66.7	68.90
450	33.1	43.20	450	40.9	52.30	450	50.3	62.70	450	61.5	74.40	450	75.0	87.36
500	36.8	53.30	500	45.4	64.50	500	55.8	77.30	500	67.6	91.80	500	83.3	107.67
560	41.2	66.90	560	50.8	80.80	560	62.2	97.00	560	75.7	113.61	560	93.3	134.94
630	46.3	84.60	630	57.2	102.00	630	70.0	121.48	630	85.1	143.70	630	105.0	170.83
710	52.2	107.00	710	64.5	130.00	710	78.8	154.14	710	95.9	182.51	710	118.3	217.07
800	58.8	136.00	800	72.7	163.90	800	88.9	195.91	800	108.1	231.79	800	133.3	275.41
900	66.2	171.00	900	81.8	207.40	900	100.0	247.90	900	121.6	289.40	900	150.0	348.64
1000	73.5	211.10	1000	90.9	256.10	1000	111.1	306.05	1000	135.1	362.11	1000	166.7	430.48
1200	88.2	310.35	1200	109.1	368.80	1200	133.3	440.65	1200	162.2	521.65	1200	200.0	619.80
1400	102.9	413.60	1400	127.3	502.10	1400	155.5	599.71	1400	189.2	709.92	1400	233.3	843.51
1600	117.7	540.60	1600	145.5	655.80	1600	177.8	783.63	1600	216.2	927.15	1600	266.7	1082

* The s value calculated according to ISO 4065 is rounded to the nearest 2.0, 2.3, or 3.0.

\- For SDR groups not included in the table, the wall thicknesses are found by the calculation method.

Values found by the calculation method.

SDR : Standard aspect ratio (outer diameter / wall thickness)

DN : Nominal diameter

S : Wall thickness

Chemical Resistance Table

The below abbreviations are used in the table:

W.s. : Water solution
S.s : Saturated solution
R : Resistant
L : Limited resistant
NR : Nonresistant

Chemical Resistance of Polypropylene, at 20, 60 and 100°C (ISO 10358)

Chemical or Product	Concentration	Temperature °C		
		20	60	100
Acetic acid	Up to 40 %	R	-	-
Acetic acid	50 %	R	-	-
Acetic acid, glacial	> 96 %	R	L	-
Acetic anhydride	100 %	R	L	-
Acetone	100 %	L	L	-
Aceptophenone	100 %	-	-	-
Acrylonitrile	100 %	-	-	-
Air		R	R	-
Allyl alcohol	100 %	R	R	-
Almond oil		-	-	-
Alum	W.s	R	R	-
Ammonia, aqueous	S.s	R	R	-
Ammonia, dry gas	100 %	R	R	-
Ammonia, liquid	100 %	-	-	-
Ammonium acetate	S.s	R	R	-
Ammonium chloride	S.s	R	R	-
Ammonium fluoride	Up to 20 %	R	R	-
Ammonium hydrogen carbonate	S.s	R	R	-
Ammonium metaphosphate	S.s	R	R	-
Ammonium nitrate	S.s	R	R	-
Ammonium persulphate	S.s	-	-	-
Ammonium phosphate	S.s	R	R	-
Ammonium sulphate	S.s	R	R	-
Ammonium sulphide	S.s	R	L	-
Amyl acetate	100 %	R	L	-
Amyl alcohol	100 %	R	L	-
Aniline	100 %	R	-	-
Apple juice		NR	NR	-
Aqua regia	HCl/HNO3=3/1	NR	NR	NR
Barium bromide	S.s	R	R	-
Barium carbonate	S.s	R	R	-
Barium chloride	S.s	R	R	-
Barium hydroxide	S.s	R	R	-
Barium sulphide	S.s	R	R	-

Chemical Resistance of Polypropylene, at 20, 60 and 100°C (ISO 10358)

Chemical or Product	Concentration	Temperature °C		
		20	60	100
Beer		R	R	-
Benzene	100 %	L	L	-
Benzoic acid	S.s	R	R	-
Benzyl alcohol	100 %	-	-	-
Borax	W.s	R	R	-
Boric acid	S.s	R	R	-
Boron trifluoride	S.s	R	-	-
Bormine, gas		NR	NR	-
Bromine, liquid	100 %	NR	NR	-
Butane, gas	100 %	R	-	-
Butanol	100 %	R	R	-
Butyl acetate	100 %	-	-	-
Butyl glycol	100 %	-	-	-
Butyl phenols	S.s	-	-	-
Butyl phthalate	100 %	-	L	L
Calcium carbonate	S.s	R	R	-
Calcium chlorate	S.s	R	R	-
Calcium chloride	S.s	R	R	-
Calcium hydroxide	S.s	R	R	R
Calcium hypochlorite	W.s	R	R	-
Calcium nitrate	S.s	R	R	-
Camphor oil		-	-	-
Carbon dioxide, dry gas		R	R	-
Carbon dioxide, wet gas		R	R	-
Carbon disulphide	100 %	L	NR	-
Carbon monoxide, gas		R	R	-
Carbon tetrachloride	100 %	NR	NR	NR
Castor oil	100 %	R	R	-
Caustic soda	Up to 50%	R	L	L
Chlorine, aqueous	S.s	R	L	-
Chlorine, dry gas	100 %	NR	NR	NR
Chlorine, liquid	100 %	NR	NR	NR
Chloroacetic acid	W.s	R	-	-
Chloroethanol ,	100%	R	-	-

Chemical Resistance of Polypropylene, at 20, 60 and 100°C (ISO 10358)

Chemical or Product	Concentration	Temperature °C		
		20	60	100
Chloroform	100%	L	NR	NR
Chlorosulphonic acid	100%	NR	NR	NR
Chrome alum	W.s	R	R	-
Chromic acid	Up to 40%	R	L	NR
Citric acid	S.s	R	R	R
Coconut oil		R	-	-
Copper (II) chloride	S.s	R	R	-
Copper (II) nitrate	S.s	R	R	R
Copper (II)	S.s	R	R	-
Corn oil		R	L	-
Cottonseed oil		R	R	-
Cresol	Greater than 90 %	R	-	-
Cyclohexane	100%	R	-	-
Cyclohexanol	100%	R	L	-
Cyclohexanone	100%	L	NR	NR
Decalin (decahydronaphthalene)	100%	NR	NR	NR
Dextrin	W.s	R	R	-
Dextrose	W.s	R	R	R
Dibutyl phthalate	100%	R	L	NR
Dichloroacetic acid	100%	L	-	-
Dichloroethylene (A and B)	100%	L	-	-
Diethanolamine	100%	R	-	-
Diethyl ether	100%	R	L	-
Diethylene glycol	100%	R	R	-
Diglycolic acid	S.s	R	-	-
Diisooctyl	100%	R	L	-
Dimethyl amine, gas		R	-	-
Dimethyl formamide	100%	R	R	-
Dioctyl phthalate	100%	L	L	-
Dioxane	100%	L	L	-
Distilled water	100%	R	R	R
Ethanolamine	100%	R	-	-
Ethyl acetate	100%	L	NR	NR
Ferric chloride	S.s	R	R	R
Formaldehyde	40 %	R	-	-
Formic acid	10 %	R	R	L
Formic acid	85 %	R	NR	NR
Formic acid, anhydrous	100 %	R	L	L
Fructose	W.s	R	R	R
Fruit juice		R	R	R
Gasoline, petrol (aliphatic hydrocarbons)		NR	NR	NR
Gelatine		R	R	-
Glucose	20 %	R	R	R
Glycerine	100 %	R	R	R
Glycolic acid	30 %	R	-	-
Heptane	100 %	L	NR	NR
Hexane	100 %	R	L	-

Chemical Resistance of Polypropylene, at 20, 60 and 100°C (ISO 10358)

Chemical or Product	Concentration	Temperature °C		
		20	60	100
Hydrobromic acid	Up to 48 %	R	L	NR
Hydrochloric acid	Up to 20 %	R	R	R
Hydrochloric acid	30 %	R	L	L
Hydrochloric acid	From 35 to 36 %	R	-	-
Hydrofluoric acid	w.s	R	-	-
Hydrofluoric acid	40 %	R	-	-
Hydrogen	100 %	R	-	-
Hydrogen chloride, dry gas	100 %	R	R	-
Hydrogen peroxide	Up to 10 %	R	-	-
Hydrogen peroxide	Up to 30 %	R	L	-
Hydrogen sulphide, dry gas	100 %	R	R	-
Iodine, in alcohol		R	-	-
Isoctane	100 %	L	NR	NR
Isopropyl alcohol	100 %	R	R	R
Isopropyl ether	100 %	L	-	-
Lactic acid	Up to 90 %	R	R	-
Lanoline		R	L	-
Linseed oil		R	R	R
Magnesium carbonate	S.s	R	R	R
Magnesium chloride	S.s	R	R	-
Magnesium hydroxide	S.s	R	R	-
Magnesium sulphate	S.s	R	R	-
Maleic acid	S.s	R	R	-
Mercury (II) chloride	S.s	R	R	-
Mercury (II) cyanide	S.s	R	R	-
Mercury (I) nitrate	W.s	R	R	-
Mercury	100 %	R	R	-
Methyl acetate	100 %	R	R	-
Methyl alcohol	5 %	R	L	L
Methyl amine	Up to 32 %	R	-	-
Methyl bromide	100 %	NR	NR	NR
Methyl ethyl ketone	100 %	R	-	-
Methylene chloride	100 %	L	NR	NR
Milk		R	R	R
Monochloroacetic acid	>85 %	R	R	-
Naphtha		R	NR	NR
Nickel chloride	S.s	R	R	-
Nickel nitrate	S.s	R	R	-
Nickel sulphate	S.s	R	R	-
Nitric acid	Up to 30 %	R	NR	NR
Nitric acid	From 40 to 50 %	L	NR	NR
Nitric acid, fujming (with nitrogen dioxide)		NR	NR	NR
Nitrobenzene	100%	R	L	_
Oleic acid	100 %	R	L	-
Oleum (sulphuric acid with 60 % of SO3)		R	L	-
Olive oil		R	R	L
Oxalic acid	w.s	R	L	NR

Chemical Resistance of Polypropylene, at 20, 60 and 100°C (ISO 10358)

Chemical or Product	Concentration	Temperature °C		
		20	60	100
Oxygen, gas		R	-	-
Paraffin oil (FL65)		R	L	NR
Peanut oil		R	R	-
Peppermint oil		R	-	-
Perchloric acid	(2N) 20%	R	-	-
Petroleum ether (ligroin)		L	L	-
Phenol	5%	R	R	-
Phenol	90%	R	-	-
Phosphine,gas		R	R	-
Phosphoric acid	Up.to 85%	R	R	R
Phosphorus oxychloride	100%	L	-	-
Picric acid	S.s	R	-	-
Potassium bicarbonate	S.s	R	R	R
Potassium borate	S.s	R	R	-
Potassium bromated	Up to 10%	R	R	-
Potassium bromide	S.s	R	R	
Potassium carbonate	S.s	R	R	
Potassium chlarate	S.s	R	R	
Potassium chloerite	S.s	R	R	
Potassium chromate	S.s	R	R	
Potassium cyanide	W.s	R	-	
Potassium dichromate	S.s	R	R	R
Potassium ferricyanide	S.s	R	R	-
Potassium fluride	S.s	R	R	-
Potassium hydroxide	Up to 50%	R	R	R
Ptassium iodide	S.s	R	-	-
Potassium nitrate	S.s	R	R	-
Potassium pechlorate	10%	R	R	-
Potassium permanganate	(2 N) 30%	R	-	-
Potassium persulphate	S.s	R	R	-
Potassium sulphate	S.s	R	R	-
Propane,gas	100%	R	-	-
Propionic acid	>50%	R	-	-
Pyridine	100%	L	-	-
Seaweter		R	R	R
Silicon oil		R	R	R
Silver nitrate	S.s	R	R	L
Sodium acetate	S.s	R	R	R
Sodium benzoate	35%	R	L	-
Sodium bicarbonate	S.s	R	R	R
Sodium carbonate	Up to 50%	R	R	L
Sodium chlorate	S.s	R	R	-
Sodium chloride	S.s	R	R	-
Sodium chlorite	2%	R	L	NR
Sodium chlorite	20%	R	L	NR
Sodium dichromate	S.s	R	R	R

Chemical Resistance of Polypropylene, at 20, 60 and 100°C (ISO 10358)

Chemical or Product	Concentration	Temperature °C		
		20	60	100
Sodium hydrogen carbonate	S.s	R	R	R
Sodium hydrogen sulphate	S.s	R	R	-
Sodium hydrogen sulphite	S.s	R	-	-
Sodium hydroxide	1%	R	R	R
Sodium hydroxide	From 10 to 60 %	R	R	R
Sodium hypochlorite	5%	R	R	-
Sodium hypochlorite	10%-15%	R	-	-
Sodium hypochlorite	20%	R	L	-
Sodium metaphosphate	W.s	R	-	-
Sodium nitrate	S.s	R	R	-
Sodium perorate	S.s	R	R	-
Sodium phısohate (neutral)		R	R	R
Sodium silicate	W.s	R	R	-
Sodium sulphate	S.s	R	R	-
Sodium sulphide	S.s	R	-	-
Sodium sulphite	40%	R	R	R
Sodium thiosulphate (hypo)	S.s	R	-	-
Soybean oil		R	L	-
Succinic acid	S.s	R	R	-
Sulphuric acid	Up to 10%	R	R	R
Sulphuric dioxide, dry or wet	10%	R	R	-
Sulphur acid	From 10 to 30 %	R	R	-
Sulphuric acid	50 %	R	L	L
Sulphuric acid	96 %	R	L	NR
Sulphuric acid	98 %	L	NR	NR
Sulphurous acid	Up to 30 %	R	-	-
Tartaric acid	S.s	R	R	-
Tetrahydrofuran	100 %	L	NR	NR
Tetralin	100 %	NR	NR	NR
Thiophene	100 %	R	L	-
Tin(IV) chloride	W.s	R	R	-
Tin (II) chloride	S.s	R	R	-
Toluene	100 %	L	NR	NR
Trichloroacetic acid	Up to 50 %	R	R	-
Trichloroethylene	100 %	NR	NR	NR
Triethanolamine	W.s	R	-	-
Turpentine		NR	NR	NR
Urea	S.s	R	R	-
Vinegar		R	R	-
Water brackish, mineral, potable		R	R	R
Whiskey		R	R	-
Wines		R	R	-
Xylene	100%	NR	NR	NR
Yeast	W.s	R	R	R
Zinc chloride	Sat.w.s	R	R	-
Zinc sulphate	S.s	R	R	-

HDPE-100 Drinking Water Pipe (Black) (SDR:17) (PN 10)

Code	Size	S (mm)	Weight (kg/m)
8202-tbh-032110	ø32 ●	2,0	0,187
8202-tbh-040110	ø40 ●	2,4	0,295
8202-tbh-050110	ø50 ●	3,0	0,450
8202-tbh-063110	ø63 ●	3,8	0,720
8202-tbh-075110	ø75 ●	4,5	1,020
8202-tbh-090110	ø90 ●	5,4	1,460
8202-tbh-110110	ø110 ●	6,6	2,170
8202-tbh-125110	ø125 ●	7,4	2,760
8202-tbh-140110	ø140 ●	8,3	3,460
8202-tbh-160110	ø160 ●	9,5	4,520
8202-tbh-180110	ø180 ●	10,7	5,710
8202-tbh-200110	ø200 ●	11,9	7,050
8202-tbh-225110	ø225 ●	13,4	8,930
8202-tbh-250110	ø250 ●	14,8	11,000
8202-tbh-280110	ø280 ●	16,6	13,700
8202-tbh-315110	ø315 ●	18,7	17,400
8202-tbh-350110	ø355 ●	21,1	22,100
8202-tbh-400110	ø400 ●	23,7	28,000
8202-tbh-450110	ø450 ●	26,7	35,400
8202-tbh-500110	ø500 ●	29,7	43,800
8202-tbh-560110	ø560 ●	33,2	54,800
8202-tbh-630110	ø630 ●	37,4	69,400

HDPE-100 Drinking Water Pipe (Blue) (SDR:17) (PN 10)

Code	Size	S (mm)	Weight (kg/m)
8208-tbh-032110	ø32	2,0	0,187
8208-tbh-040110	ø40	2,4	0,295
8208-tbh-050110	ø50	3,0	0,450
8208-tbh-063110	ø63	3,8	0,720
8208-tbh-075110	ø75	4,5	1,020
8208-tbh-090110	ø90	5,4	1,460
8208-tbh-110110	ø110	6,6	2,170
8208-tbh-125110	ø125	7,4	2,760
8208-tbh-140110	ø140	8,3	3,460
8208-tbh-160110	ø160	9,5	4,520
8208-tbh-180110	ø180	10,7	5,710
8208-tbh-200110	ø200	11,9	7,050
8208-tbh-225110	ø225	13,4	8,930
8208-tbh-250110	ø250	14,8	11,000
8208-tbh-280110	ø280	16,6	13,700
8208-tbh-315110	ø315	18,7	17,400
8208-tbh-350110	ø355	21,1	22,100
8208-tbh-400110	ø400	23,7	28,000
8208-tbh-450110	ø450	26,7	35,400
8208-tbh-500110	ø500	29,7	43,800
8208-tbh-560110	ø560	33,2	54,800
8208-tbh-630110	ø630	37,4	69,400

HDPE-100 Drinking Water Pipe (Black) (SDR:11) (PN 16)

Code	Size	S (mm)	Weight (kg/m)
8202-tbh-020116	ø20 ●	2,0	0,112
8202-tbh-025116	ø25 ●	2,3	0,17
8202-tbh-032116	ø32 ●	3,0	0,27
8202-tbh-040116	ø40 ●	3,7	0,43
8202-tbh-050116	ø50 ●	4,6	0,66
8202-tbh-063116	ø63 ●	5,8	1,05
8202-tbh-075116	ø75 ●	6,8	1,47
8202-tbh-090116	ø90 ●	8,2	2,12
8202-tbh-110116	ø110 ●	10,0	3,14
8202-tbh-125116	ø125 ●	11,4	4,1
8202-tbh-140116	ø140 ●	12,7	5,1
8202-tbh-160116	ø160 ●	14,6	6,7
8202-tbh-180116	ø180 ●	16,4	8,4
8202-tbh-200116	ø200 ●	18,2	10,4
8202-tbh-225116	ø225 ●	20,5	13,1
8202-tbh-250116	ø250 ●	22,7	16,2
8202-tbh-280116	ø280 ●	25,4	20,3
8202-tbh-315116	ø315 ●	28,6	25,6
8202-tbh-355116	ø355 ●	32,2	32,5
8202-tbh-400116	ø400 ●	36,3	41,3
8202-tbh-450116	ø450 ●	40,9	52,3
8202-tbh-500116	ø500 ●	45,4	64,5
8202-tbh-560116	ø560 ●	50,8	80,8
8202-tbh-630116	ø630 ●	57,2	102

HDPE-100 Drinking Water Pipe (Blue) (SDR:11) (PN 16)

Code	Size	S (mm)	Weight (kg/m)
8208-tbh-020116	ø20	2,0	0,112
8208-tbh-025116	ø25	2,3	0,17
8208-tbh-032116	ø32	3,0	0,27
8208-tbh-040116	ø40	3,7	0,43
8208-tbh-050116	ø50	4,6	0,66
8208-tbh-063116	ø63	5,8	1,05
8208-tbh-075116	ø75	6,8	1,47
8208-tbh-090116	ø90	8,2	2,12
8208-tbh-110116	ø110	10,0	3,14
8208-tbh-125116	ø125	11,4	4,1
8208-tbh-140116	ø140	12,7	5,1
8208-tbh-160116	ø160	14,6	6,7
8208-tbh-180116	ø180	16,4	8,4
8208-tbh-200116	ø200	18,2	10,4
8208-tbh-225116	ø225	20,5	13,1
8208-tbh-250116	ø250	22,7	16,2
8208-tbh-280116	ø280	25,4	20,3
8208-tbh-315116	ø315	28,6	25,6
8208-tbh-355116	ø355	32,2	32,5
8208-tbh-400116	ø400	36,3	41,3
8208-tbh-450116	ø450	40,9	52,3
8208-tbh-500116	ø500	45,4	64,5
8208-tbh-560116	ø560	50,8	80,8
8208-tbh-630116	ø630	57,2	102

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