

PE-RT PIPES

Raw Material

PE-RT: Polyethylene of Raised Temperature Resistance

PE-RT Pipes have a higher; Long-Term Hydrostatic strength (LTHS) and Mechanical properties in hot water

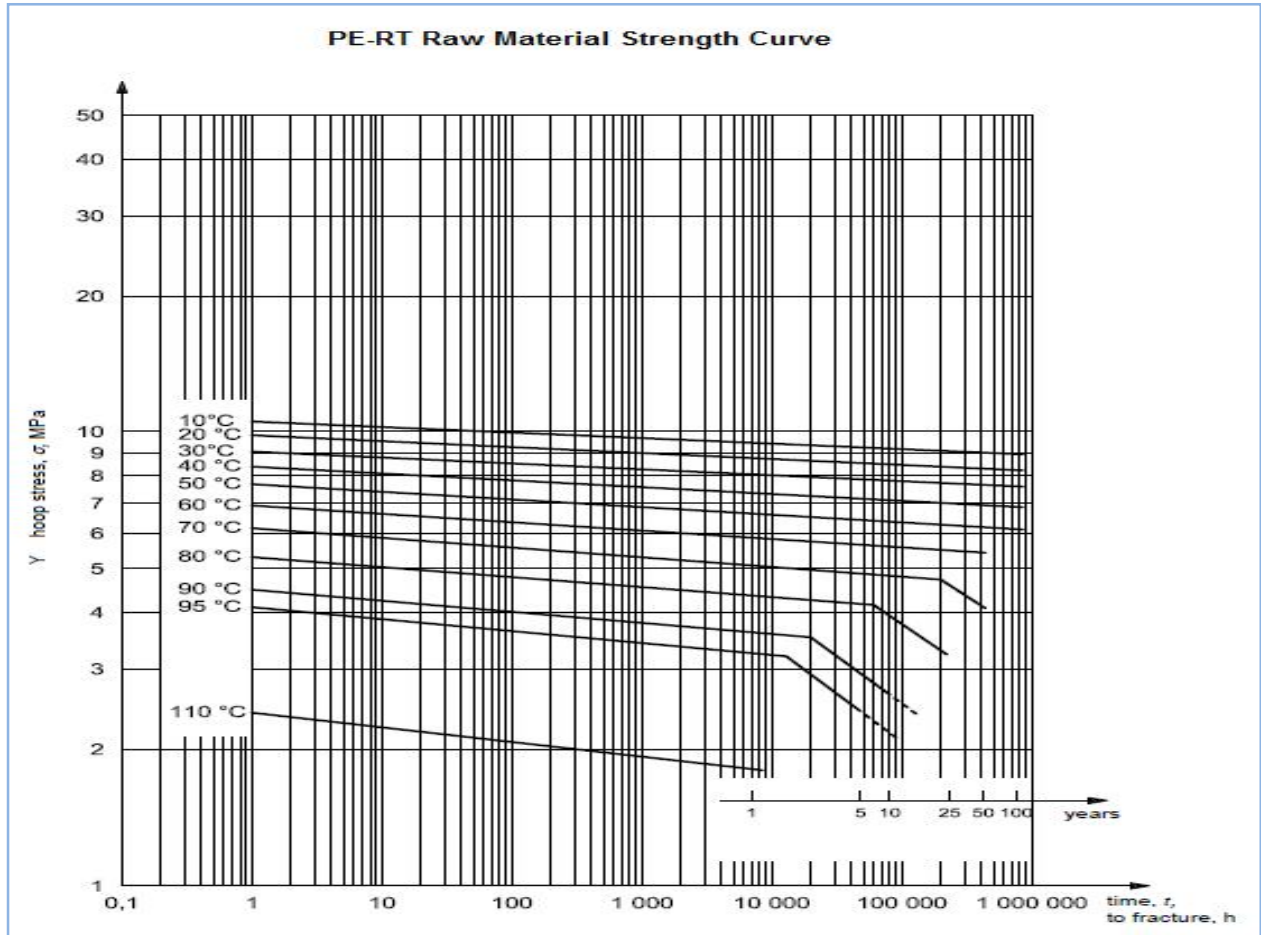
- Easier installation (Flexibility)
- Pipe without cross-linking

Properties

<u>Physical</u>	<u>Test Method</u>	<u>Unit</u>	<u>S.I</u>
Melt Index	ISO 1133	g/10 min	0,55
Melt Index	ISO 1133	g/10 min	1,85
Density	ISO 1183	g/cm ³	0,941
Vicat Softening Point	ISO 306	°C	124,7
Thermal Conductivity	DIN 52612-1	W/(mK)	0,4
Thermal Expansion Coefficient	DIN 53752 A	10 ⁻⁴ /K	1,8
<u>Mechanical</u>			
Hardness , Shore D	ISO 868	-	60,5
Tensile Yield	ISO 527-2	Mpa	20,3
Tensile Yield Elongation	ISO 527-2	%	14
Ultimate Tensile	ISO 527-2	Mpa	37
Ultimate Elongation	ISO 527-2	%	780
Flexural Modulus	ISO 178	Mpa	660
Elastic Modulus(1)	ISO 527-2	Mpa	645
Izod Impact	ISO 180	kJ/m ²	23,0

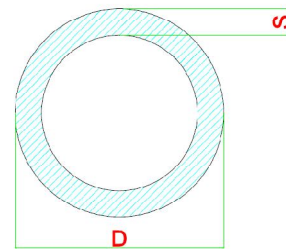
*1 Elastic modulus is vital indicator of bending resistance for PE-RT pipe. This value is 645 Mpa at 20°C





PE-RT Pipe Dimensions

<u>Diameter</u> <u>D (mm)</u>	<u>Wall Thickness</u> <u>s (mm)</u>	<u>Coil Length</u> <u>(m)</u>
14	2,0	160
16	2,0	160
17	2,0	160
18	2,0	160
20	2,3	100
25	2,8	160
32	3,6	50



Applications Areas

- Hot / Cold drinking water distribution
- Radiator Connections
- Heating / Cooling applications
- Mono / Multi-layer pipe
- Industrial Applications

****Fırat PE-RT pipes produced according to *German Standard SKZ HR 3.16***

PE-RT Pipe Service Life

Pipe Type		S 4
		SDR9
Temperature (°C)	Service Life (Year)	Pressure (bar)
10	1	17,7
	5	17,4
	10	17,3
	25	17,1
	50	17,0
20	1	16,3
	5	16,0
	10	15,8
	25	15,7
	50	15,6
30	1	14,8
	5	14,5
	10	14,4
	25	14,2
	50	14,1
40	1	13,4
	5	13,1
	10	13,0
	25	12,8
	50	12,7
50	1	11,9
	5	11,6
	10	11,5
	25	11,4
	50	11,3
60	1	10,5
	5	10,2
	10	10,1
	25	10,0
	50	9,8
70	1	9,1
	5	8,8
	10	8,7
	25	8,6
	50	8,4
80	1	7,7
	5	7,4
	10	7,3
	25	7,2
90	1	6,3
	5	6,1
	10	6,0
95	1	5,7
	5	5,5

Reference Standard: DIN 16834
SF - Safety Factor = 1,5