

Basic Standard HDPE PE 100 RC Pressure Pipe Material Data

Outstanding Resistance to slow crack growth. Our pipes comply to PAS 1075 (Publicly Available Specification)

	Norm	Unit	Value
Polymer Data			
Density (Compound)	ISO 1183	[g/cm ³]	0,959
Melt Flow (190°C/5,0 Kg)	ISO 1133	[g/10 min]	0,23-0,25
Mechanical Properties			
Shore Hardness (Shore D(3 sec))	ISO 868	Shore D	63
Tensile Modulus	ISO 527-1	[MPa]	>900
Flexural Modulus	ASTM D 790	[MPa]	1000
Tensile Strength at yield	ISO 527-1	[Mpa]	>23
Tensile strength at break	ISO 527-1	%	> 600
Tensile Creep Modulus 1hr	ISO 899-1	MPa	850
Tensile Creep Modulus 1000hr	ISO 899-1	MPa	360
Flexural creep modulus (4 point method 1min)	DIN 19537-2	MPa	1100
Flexural creep modulus (4 point method 24 hr)	DIN 19537-2	MPa	560
Flexural creep modulus (4 point method 2000hr)	DIN 19537-2	MPa	330
Charpy notched impact strength (-30°C)	ISO 179	[KJ/m]	13
Charpy notched impact strength (23°C)	ISO 179	[KJ/m]	26
Other properies			
MRS Classification	ISO 9080		10
Hydostatic Design Basis	ISO 9080	[Mpa]	10
ESC (ESCR) Environmental Stress Crack Resistance	ASTM D 1693	hr	>10000
OIT Oxidation Induction Time (210°C)	ISO 11357-6	Minutes	>70
Creep Rupture (12 Mpa @ 20°C)	ISO 1167	hr	>200
FNCT (4.0MPa, 2% Arkopal N 100, 80°C)	ISO 16770	hr	>8000
Rapid Crack Propagation (S4 Test @ 0°C)	ISO 13477	bar	>10
Slow Crack Resistance (Notch test 9,2bar@80°C)	ISO 13479	[hrs]	> 5000