



Hostalen CRP 100 RD black

Polyethylene, High Density

Product Description

Hostalen CRP 100 RD black is a high density polyethylene. The new generation of PE100 material has been designed to meet new technical requirements for drinking water pipe systems. The material exhibits an improved resistance against disinfectants. The material is black coloured similar RAL 9004 with high melt viscosity for extrusion, injection and compression moulding. The product is classified as PE 100 and provides excellent stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength. It is not intended for medical and pharmaceutical applications.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Asia-Pacific, Australia/NZ, Africa-Middle East, Latin America
Processing Methods	Extrusion Pipe Sheet and Semi Finished Products
Typical Customer Applications	Drinking Water Pipe, Gas Pipe, Industrial, Soil & Waste Pipe

Typical Properties	Method	Value	Unit
Physical			
Density	ISO 1183	0.959	g/cm ³
Melt flow rate (MFR)	ISO 1133		
(190°C/21.6kg)		6.4	g/10 min
(190°C/5.0kg)		0.23	g/10 min
Mechanical			
Tensile Modulus (23 °C, v = 1 mm/min, Secant)	ISO 527-1, -2	1100	MPa
Tensile Stress at Yield (23 °C, v = 50 mm/min)	ISO 527-1, -2	23	MPa
Tensile Strain at Yield (23 °C, v = 50 mm/min)	ISO 527-1, -2	8	%
Tensile Creep Modulus 1h	ISO 899-1	850 [2.0]	MPa
Note: [Test stress in MPa]			
Tensile Creep Modulus 1000h	ISO 899-1	360 [2.0]	MPa
Note: [Test stress in MPa]			
Maximum elongation TD	EN 638	≥ 350	%
MRS classification	ISO/TR 9080	10	MPa
Flexural stress at 3,5% deflection	ISO 178	21	MPa
FNCT (4.0 MPa, 2% Arkopal N 100, 80°C)	ISO 16770	≥ 1000	h
Flexural creep modulus	DIN 19537-2		
(4 point loading method, 1 min-value)		1200	MPa
(4 point loading method, 24 h-value)		560	MPa
(4 point loading method, 2000 h-value)		330	MPa
Impact			
Charpy notched impact strength	ISO 179		
(23 °C)		26	kJ/m ²
(-30 °C)		13	kJ/m ²
Hardness			
Shore hardness (Shore D (3 sec))	ISO 868	63	
Thermal			
Vicat softening temperature (VST/B/50 K/h (50 N))	ISO 306	74	°C
Oxidation induction time (OIT) (210°C)	ISO 11357-6 / EN 728	30	min
Additional Information			
Carbon black content	ISO 6964	2.25	%
Odor threshold	EN 1622/EN 1420	< 2	

Additional Properties

Processing:
Recommended melt temperatures: 190-220 °C.
Recommended injection moulding temperatures: 200-280 °C.