



Hostalen CRP 100 RESIST CR black

Polyethylene, High Density

Product Description

Hostalen CRP 100 RESIST CR black is a high density polyethylene (HDPE), black coloured similar RAL 9004 with high melt viscosity for extrusion, injection and compression moulding. The product is classified as PE 100-RC and provides a very good long term hydrostatic strength. Especially developed for non-conventional pipe installation methods the product has a superior resistance to slow crack growth. It fulfils the material requirements of PAS 1075:2009-04.

It is not intended for medical and pharmaceutical applications.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, North America, 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	0.958	g/cm³
Melt flow rate (MFR)	ISO 1133		
(190°C/21.6kg)		6.4	g/10 min
(190°C/5.0kg)		0.23	g/10 min
Note: MFR 190/5 =			
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	9	%
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	≥ 8760	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/m²
(-30 °C)		13	kJ/m²
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.