Technical Data Sheet

Hostalen CRP 100 RD BLACK

High Density Polyethylene

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 exibits 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.

Regulatory Status

For regulatory compliance information, see *Hostalen* CRP 100 RD BLACK Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

This grade is not intended for medical and pharmaceutical applications.

This grade is supported for use in drinking water applications.

Status	Commercial: Active
Availability	Asia-Pacific; Australia and New Zealand; Europe; South & Central America
Application	Drinking Water Pipe; Gas Pipe; Industrial; Soil & Waste Pipe
Market	Industrial, Building & Construction; Pipe
Processing Method	Compression Molding; Pipe; Sheet
Attribute	Good Abrasion Resistance; Good Chemical Resistance; Good Creep Resistance; Good Heat Aging Resistance; Good Organoleptic Properties; Good UV Resistance; Good Wear Resistance; Good Weather Resistance; High Density; High ESCR (Environmental Stress Cracking Resistance); High Viscosity; Weldable

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(190 °C/5.0 kg)	0.23	g/10 min	ISO 1133-1
(190 °C/21.6 kg)	6.4	g/10 min	ISO 1133-1
Density	0.959	g/cm³	ISO 1183-1
Mechanical			
Flexural Creep Modulus			
(4-point loading / 1 min)	1200	MPa	DIN 16841
(4-point loading / 24 hr)	560	MPa	DIN 16841
(4-point loading / 2000 hr)	330	MPa	DIN 16841
Tensile Modulus, (23 °C)	1100	MPa	ISO 527-1, -2
Tensile Creep Modulus			
(1 hr / 2 MPa)	850	MPa	ISO 899-1
(1000 hr / 2 MPa)	360	MPa	ISO 899-1
Tensile Stress at Yield, (23 °C, 50 mm/min)	23	MPa	ISO 527-1, -2
Tensile Strain at Break, (23 °C)	650	%	ISO 527-1, -2
Tensile Strain at Yield, (23 °C, 50 mm/min)	8	%	ISO 527-1, -2
MRS Classification	10	MPa	ISO 9080

FNCT, (4.0 MPa, 2% Arkopal N100, 80 °C)	>=1000	hr	ISO 16770
Impact			
Charpy Impact Strength - Notched			
(23 °C)	26	kJ/m²	ISO 179-1/1eA
(-30 °C)	13	kJ/m²	ISO 179-1/1eA
Hardness			
Shore Hardness, (Shore D, 3 sec)	63		ISO 868
Thermal			
Vicat Softening Temperature, (B50)	74	°C	ISO 306
Oxidation Induction Time, (210 °C)	30	min	ISO 11357-6
DSC Melting Point	129	°C	DSC
Additive			
Carbon Black Content	2.25	%	ISO 6964
Additional Information			
Odor Threshold	<=2		EN 1622/EN 1420
measured on pellets / 30°C / 4 h extraction time			

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Users should determine the conditions necessary to obtain optimum product properties and suitability of the product for the intended application.

Recommended melt temperatures: 190 °C to 230 °C.

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.