

Hostalen CRP 100 BLACK

High Density Polyethylene

PRODUCT DESCRIPTION

Hostalen CRP 100 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 and provides excellent stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength.

TYPICAL PROPERTIES

PROPERTIES	NOMINAL VALUE	UNITS	TEST METHOD
Physical			
Melt Flow Rate (190 °C/5.0 kg)	0.23	g/10 min	ISO 1133-1
Melt Flow Rate (190 °C/21.6 kg)	6.4	g/10 min	ISO 1133-1
Density	0.959	g/cm ³	ISO 1183-1
Bulk Density	580	kg/m ³	ISO 60
Mechanical			
Flexural Creep Modulus (4-point loading / 1 min)	1200	MPa	DIN 16841
Flexural Creep Modulus (4-point loading / 24 hr)	560	MPa	DIN 16841
Flexural Creep Modulus (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
Tensile Creep Modulus (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)	>=350	%	ISO 527-1, -2
Tensile Strain at Yield (23 °C, 50 mm/min)	8	%	ISO 527-1, -2
Further Information			
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/m ²	ISO 179-1/1eA
Charpy Impact Strength - Notched (-30 °C)	13	kJ/m ²	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.

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REGULATORY STATUS

For regulatory compliance information, see Hostalen CRP 100 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.

PRODUCT / MARKET INFORMATION

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

HEALTH AND SAFETY

The resin is manufactured to high standards; special requirements apply to food-contact and direct medical uses. Contact the local representative for regulatory compliance. Workers should be protected from skin/eye contact with molten polymer; safety glasses are suggested. Molten polymer may degrade when exposed to air, producing odor and potentially irritating vapours; fabrication areas should be ventilated and emissions legislation observed. The resin burns with excess heat and oxygen and should be kept from flames/ignition sources; burning may produce dense black smoke. Recycled resins may have contacted hazardous goods; converters must ensure safe continued use. Refer to the Safety Data Sheet for further handling and processing information.

CONVEYING

Conveying equipment should prevent fines/dust accumulation that can pose an explosion hazard. Systems should be grounded, adequately filtered and regularly inspected for leaks.

PROCESSING TECHNIQUES

Users should determine conditions needed for optimum properties and suitability. Recommended melt temperatures: 190 °C to 230 °C. Specific recommendations depend on end use, required properties and fabrication equipment.

STORAGE

The resin is packed in 25 kg bags, octabins or bulk containers protecting it from contamination. If stored under conditions with large ambient-temperature fluctuations and high atmospheric humidity, moisture may condense inside the packaging; drying before use is recommended. Unfavorable storage conditions may intensify the resin's slight characteristic odor. Resin should be protected from direct sunlight, temperatures above 40°C and high atmospheric humidity. Higher storage temperatures may reduce storage time.

GENERAL INFORMATION

The information submitted is based on current knowledge and experience. Because many factors may affect processing and application, these data do not relieve processors of carrying out their own tests and experiments, nor do they imply legally binding assurance of properties or suitability for a specific purpose. Customers must inspect material on arrival and notify faults immediately. Recipients are responsible for observing proprietary rights and existing laws and legislation.

DISCLAIMER

Before using a product sold by a LyondellBasell family company, users should independently determine suitability, safe use and legal use. SELLER MAKES NO WARRANTY; EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY WARRANTY) OTHER THAN AS SEPARATELY AGREED TO BY THE PARTIES IN A CONTRACT. Users should review the applicable Safety Data Sheet before handling the product.

The product(s) may not be used without prior written Seller approval in: (i) U.S. FDA Class I/II, Health Canada Class I/II/III, or EU Class I/II Medical Devices; (ii) film, overwrap or packaging considered part/component of those devices; (iii) packaging in direct contact with pharmaceutical active ingredient/dosage form intended for inhalation, injection, intravenous, nasal, ophthalmic, digestive or topical administration; (iv) tobacco-related products, electronic cigarettes and similar devices; (v) automotive safety components such as air bags/housings/covers, seat-belt mechanisms, brake systems, pedals/supports and steering systems.

The product(s) may not be used in: (i) U.S. FDA Class III, Health Canada Class IV, or European Class III Medical Devices; (ii) permanent implantation applications; (iii) life-sustaining medical applications. References to U.S. FDA, Health Canada and EU regulations include equivalent classifications elsewhere. LyondellBasell may further prohibit/restrict uses; contact a representative.