

## Technical Data Sheet

### Hostalen CRP 100 RT BLACK

High Density Polyethylene



#### Product Description

Hostalen CRP 100 RT black is a high density polyethylene (HDPE), black colored similar RAL 9004, with high melt viscosity for extrusion, injection and compression molding. The product is used by customers in pipe and sheet applications and provides good stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength even at raised temperature (RT). It has an excellent heat ageing and extremely high extraction stability.

Hostalen CRP 100 RT black has a minimum required strength (MRS) classification of 10 MPa and is thereby designated PE 100 according to ISO 12162:2009

This grade is not intended for medical and pharmaceutical applications.

This grade is supported for use in drinking water applications.

<b>Status</b>	Commercial: Active
<b>Availability</b>	Africa-Middle East; Asia-Pacific; Australia and New Zealand; Europe; South & Central America
<b>Application</b>	Conduit; Drinking Water Pipe; Industrial; Soil & Waste Pipe
<b>Market</b>	Industrial, Building & Construction; Pipe
<b>Processing Method</b>	Pipe; Sheet
<b>Attribute</b>	Extraction Resistant; Good Abrasion Resistance; Good Chemical Resistance; Good Creep Resistance; Good Heat Aging Resistance; Good Organoleptic Properties; Good Weather Resistance; Weldable

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Melt Flow Rate			
(190 °C/5.0 kg)	0.45	g/10 min	ISO 1133-1
(190 °C/21.6 kg)	9.5	g/10 min	ISO 1133-1
Density	0.957	g/cm <sup>3</sup>	ISO 1183-1
<b>Mechanical</b>			
Flexural Creep Modulus			
(4-point loading / 1 min)	1000	MPa	DIN 16841
(4-point loading / 24 hr)	470	MPa	DIN 16841
(4-point loading / 2000 hr)	300	MPa	DIN 16841
Tensile Modulus, (23 °C)	1050	MPa	ISO 527-1, -2
Tensile Creep Modulus			
(1 hr / 2 MPa)	640	MPa	ISO 899-1
(1000 hr / 2 MPa)	300	MPa	ISO 899-1
Tensile Stress at Yield, (23 °C, 50 mm/min)	22	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)	350	hr	ISO 16770
<b>Impact</b>			
Charpy Impact Strength - Notched			
(23 °C)	24	kJ/m <sup>2</sup>	ISO 179-1/1eA
(-30 °C)	8	kJ/m <sup>2</sup>	ISO 179-1/1eA
<b>Hardness</b>			
Shore Hardness, (Shore D, 3 sec)	59		ISO 868
<b>Thermal</b>			
Vicat Softening Temperature, (B50)	70	°C	ISO 306
Oxidation Induction Time, (210 °C)	40	min	ISO 11357-6
<b>Additive</b>			
Carbon Black Content	2.25	%	ISO 6964

## 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.

