HMCRP100B (Black)

PRODUCT DATA SHEET

HM-CRP100 Black is a black pipe grade resin (PE100) which is manufactured by suspension polymerization of ethylene monomer. HM-CRP100 Black is a bi-modal high density polyethylene with 1-Butene as comonomer.

HDPE: HMCRP100 Black (PE100 Black)

Characteristic Properties

- Black PE100 resin

Density: 0.955-0.959 g/cm^3

Main Applications

- Top quality PE100 pressure pipes for gas and water transportation at higher pressures or with thinner walls than PE80

MFR: 190/5: 0.20-0.24

Additives

- Antioxidant/Process stabilizer
- Lubricant (processing aid)/acid scaenger
- Carbon Black

Resin Properties	*Unit*	*Value*	*Test Mode*
Melt Index (5)	g/10 min	0.22	ISO1133
Melt Index (21.6)	g/10 min	6.2	
FRR (21.6/5)	g/10 min	28	
Density	g/cm^3	0.957	ISO1183
Mechanical Properties			
Stress at Yield ***Strain at Break*** ***Tensile Modulus, secant, 1mm/min***	MPa % MPa	>23 >500 >700	ISO527
Charpy Notched Impact at 23°C	kj/m^2	>23	ISO179
Strain Hardening modulus at 80 °C	MPa	>35	ISO18488
FNCT (4 MPa, 2% Arkopal N100, 80 °C)	hr	>1000	ISO18553
ESCR (F50, 10% Igepal)	hr	>5000	ASTM D1693
Pipe Properties			
MRS Classification	Mpa	10	ISO9080
Notched Pipe Test, SCG at 4.6MPa, 80 °C	hr	>500	ISO13479
Creep Rapture Strength *Internal Pressure test at 20 C and 12.4 MPa*	hr	>200	ISO1167
Burst test	Ductile Failure		ASTM D1599
Thermal Properties			
OIT at 210 °C	min	>30	ISO11357
Melting Point	°C	131±2	ASTM D3418
Pigmentation			
Carbon Black dispersion	Grade	<3	ISO18553
Carbon Black content	2.0-2.5	%	ISO6964