



Resin Properties - HDPE (Black)

CONTINUUM DGDA-2490 BK Bimodal Polyethylene Resin is produced using UNIPOL II™ process technology. This product may be utilized for pipe applications where long-term hydrostatic strength combined with outstanding resistance to slow crack growth and rapid crack propagation is desired. Suitable applications include natural gas distribution pipes, industrial piping, mining, sewage and municipal water service lines. Is currently recognized by the Plastics Pipe Institute as having a PE 4710 and PE 100 rating.

Typical Properties

	English Units	SI Units	Test Method
Density (Natural)	—	0.949 g/cm ₃	ASTM D792
Density (Black)	—	0.959 g/cm ₃	
Melt Index			ASTM D1238
@ 190° C/2.16 kg	—	0.08 g/10 min	
@ 190° C/21.6 kg	—	7.50 g/10 min	
Tensile Strength			
@ Yield (2 in/min)	3600 psi	24.8 MPa	ASTM D638
Elongation @ Break (2 in/min)	740%	740%	ASTM D638
Flexural Modulus	150,000 psi	1030 MPa	ASTM D790B
Notched Izod Impact Strength 23°C	9.10 ft-lb/in	486 J/m	ASTM D256A
Hydrostatic Strength			ASTM D1598
@ 1798 psi(12.4MPa):68°F(20°C)	>100 hr	>100 hr	
@ 798 psi(5.5MPa):176°F(80°C)	>10000 hr	>10000 hr	
Brittleness Temperature	<-103°F	<-75°C	ASTM D746A
Thermal Stability	428°F	220°C	ASTM D3350
Resistance to RCP, Pc	>174 psi	>12.0 bar	ISO 13477
Resistance to RCP, Tc	<2°F	<-17°C	ISO 13477
Pipe Notch SCR			ISO 13479
@176°F(80°C),133 psi(0.92 MPa)	>1000 hrs.	>1000 hrs.	
Slow Crack Growth (PENT)	>1000 hrs.	>1000 hrs.	ASTM F1473
Creep Rupture Strength			ISO 1167
@ 68°F(20°C),1798 psi(12.4 MPa)	200 hrs.	200hrs.	
Melt Temperature	380 to 440°F	193 to 227°C	