



CONTINUUM™ DGDD-2480 BK Bimodal Polyethylene Resin

Overview

CONTINUUM™ DGDD-2480 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 are desired. Suitable applications include natural gas distribution pipes, industrial piping, mining, sewage, and municipal water service lines.

Industrial Standards Compliance

ASTM D 3350: cell classification

- Black - PE445574 CC0 (See NOTES A)

Plastics Pipe Institute (PPI): TR-4

- Black Pipe - CONTINUUM DGDD-2480 BK (See NOTES A)
- ASTM PE4710 pipe grade - 1600psi HDB and 1000psi HDS @ 73°F, and 1000psi HDB @ 140°F

NSF International: Standard 14 and 61

- Black Pipe - DGDD-2480 BK (See NOTES A)

Consult the regulations for complete details.

NOTES:

(A) Natural resin extruded under proper conditions with carbon black masterbatch DFNF-0092 (6.5%).

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density			ASTM D792
Natural	0.949 g/cm ³	0.949 g/cm ³	
Black ¹	0.959 g/cm ³	0.959 g/cm ³	
Melt Index			ASTM D1238
190°C/2.16 kg	0.080 g/10 min	0.080 g/10 min	
190°C/21.6 kg	8.5 g/10 min	8.5 g/10 min	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ² (Yield)	> 3500 psi	> 24.1 MPa	ASTM D638
Tensile Elongation ² (Break)	> 500 %	> 500 %	ASTM D638
Flexural Modulus ^{3, 2}	150000 psi	1030 MPa	ASTM D790B
Resistance to Rapid Crack Propagation, P _c			
Full Scale : 32°F (0°C) ⁴	> 664 psi	> 45.8 bar	ISO 13478
S-4 : 32°F (0°C) ⁵	> 174 psi	> 12.0 bar	ISO 13477
Resistance to Rapid Crack Propagation, T _c ⁵	< 2 °F	< -17 °C	ISO 13477
Slow Crack Growth PENT ²	5000 hr	5000 hr	ASTM F1473
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact ² (73°F (23°C))	9.1 ft-lb/in	490 J/m	ASTM D256A
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature ²	< -103 °F	< -75.0 °C	ASTM D746A
Thermal Stability	> 428 °F	> 220 °C	ASTM D3350



Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ Natural resin extruded under proper conditions with carbon black masterbatch DFNF-0092 (6.5%).

² Compression molded parts prepared according to ASTM D 4703 Procedure C unless otherwise noted in the test method. Properties will vary with changes in molding conditions and aging time.

³ Method I (3 point load)

⁴ Calculated value, determined by the equation in ISO 4437 based on S-4 test data. Pipe diameter of 10 inch IPS (25.4 cm) and Standard Diameter Ratio (SDR) 11.

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