

# CONTINUUM™ DGDB-2490 BK

Bimodal Polyethylene Resin

The Dow Chemical Company

## Message:

Compliance with industry standards

ASTM D 3350: step

black-PE445576C

plastic pipe research institute (PPI):TR-4

black pipe-CONTINUUM DGDB-2490 BK 100 (see note 1)

ISO PE100 pipe brand-MRS 10 @ 20°C; CRS 10 @ 20°C, 100 yr; CRS 8 @ 40°C, 90 yr; MRS 6.3 @ 60°C, 11 yr

ASTM PE4710 pipe brand-1600psi HDB @ 73 °F and 1000psi HDB @ 140 °F

National Health Foundation (NSF): Standard 14 and 61

black pipe-DGDB-2490 BK 100 (see note 1)

standard 14 and 61

Please check the regulations for complete details.

CONTINUUM™DGDB-2490 BK bimodal polyethylene resin was prepared by UNIPOL™II process technology. This product can be used in the field of pipeline construction. These pipelines are required to withstand water pressure strength for a long time, and have the ability to resist slow crack generation and rapid crack growth. Applicable applications include natural gas transmission and distribution pipelines, industrial pipelines, mining, sewage and municipal water supply and drainage pipelines.

remarks:

(1) under appropriate processing conditions, carbon black masterbatch DFNF-0092 (6.5%) can be added to extrude the primary color resin.

General Information			
Agency Ratings	ASTM D 3350 PE445576C		
	ASTM PE4710		
	ISO PE 100		
	NSF 14		
	NSF 61		
	PPI TR-4		
Forms	Particle		
Processing Method	Profile extrusion molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			ASTM D792
-- <sup>1</sup>	0.949	g/cm <sup>3</sup>	ASTM D792
-- <sup>2</sup>	0.959	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	0.080	g/10 min	ASTM D1238
190°C/21.6 kg	7.0	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>3</sup> (Yield)	24.8	MPa	ASTM D638
Tensile Elongation <sup>4</sup> (Break)	740	%	ASTM D638
Flexural Modulus	1030	MPa	ASTM D790B
Resistance to rapid crack propagation, Pc <sup>5</sup>	> 12.0	bar	ISO 13477
Resistance to rapid crack propagation, Tc <sup>6</sup>		°C	ISO 13477

Slow crack propagation PENT <sup>7</sup>	> 10000	hr	ASTM F1473
Hydrostatic strength <sup>8</sup>			ASTM D1598
1798 psi (12.4 MPa) : 20°C	> 100	hr	ASTM D1598
798 psi (5.5 MPa) : 80°C	> 1000	hr	ASTM D1598
Thermal Stability	> 220	°C	ASTM D3350
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact <sup>9</sup> (23°C)	490	J/m	ASTM D256A
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature <sup>10</sup>	< -75.0	°C	ASTM D746A
Extrusion	Nominal Value	Unit	
Melt Temperature	193 - 227	°C	
Extrusion instructions			
制造条件: 螺杆类型:高质量 HDPE(对于完全熔解最好使用阻隔) 熔体温度范围:380-440°F (193-225°C)			
NOTE			
1.	Natural resin		
2.	The natural resin was extruded under normal conditions using a carbon black masterbatch DFNF-0092 (6.5%).		
3.	Prepare compression molded fittings according to ASTM D 14703 procedure C, unless otherwise specified in the test method. Attributes will vary with molding conditions and aging time.		
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5.	The natural resin was extruded under normal conditions using a carbon black masterbatch DFNF-0092 (6.5%). The pipe diameter is 10 inches IPS (25.4cm) and the standard diameter ratio (SDR) is 11.		
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