CONTINUUM™ DGDB-2490 NT

Bimodal Polyethylene Resin

The Dow Chemical Company

Message:

Comply with industry standard
ASTM D 3350: step
primary colors-PE445576A
black-PE445576C (see note 1)
Plastic Pipe Research Institute (PPI):TR-4
black pipe-CONTINUUM DGDB-2490 BK 100 (see note 2)
ISO PE100 pipe brand-MRS 10 @ 20°C; CRS 10 @ 20°C, 100 yr; CRS 8 @ 40°C, 90 yr; CRS 6.3 @ 60°C, 11 yr
ASTM PE4710 pipe brand-1600psi HDB @ 73 °F and 1000psi HDB @ 140 °F
National Health Foundation (NSF): Standards 14 and 61
black pipe-DGDB-2490 BK 100 (see note 2)
please check the regulations for complete details.
CONTINUUM™DGDB-2490 NT 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 cracking and fast cracking. Applicable applications include natural gas transmission and distribution pipelines, industrial pipelines, mining, sewage and municipal water supply and drainage pipelines.
remarks:
(1) the first 5 digits in the standard grade represent the primary color resin used in the product. The last digit and the following letters represent black resin (6.5% DFNF-0092 is added to the primary color resin).
(2) 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 PE445576A
	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
-- [1]	0.949	g/cm³	ASTM D792
-- [2]	0.959	g/cm³	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 [3] (Yield)	24.8	MPa	ASTM D638
Tensile Elongation [4] (Break)	740	%	ASTM D638
Flexural Modulus	1030	MPa	ASTM D790B

Resistance to rapid crack propagation, Pc [5]	> 12.0	bar	ISO 13477
Resistance to rapid crack propagation, Tc [6]		°C	ISO 13477
Slow crack propagation PENT [7]	> 10000	hr	ASTM F1473
Hydrostatic strength [8]			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 [9] (23°C)	490	J/m	ASTM D256A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature [10]	< -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 4703 procedure C, unless otherwise specified in the test method. Attributes will vary with molding conditions and aging time.
4.	Prepare compression molded fittings according to ASTM D 4703 procedure C, unless otherwise specified in the test method. Attributes will vary with molding conditions and aging time.
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.
6.	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.

7.	Prepare compression molded fittings according to ASTM D 4703 procedure C, unless otherwise specified in the test method. Attributes will vary with molding conditions and aging time.
8.	The natural resin was extruded under normal conditions using a carbon black masterbatch DFNF-0092 (6.5%).
9.	Prepare compression molded fittings according to ASTM D 4703 procedure C, unless otherwise specified in the test method. Attributes will vary with molding conditions and aging time.
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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China