

# DOW™ DGDA-2399 PE-RT

Raised Temperature Polyethylene Resin

The Dow Chemical Company

## Message:

DOW DGDA-2399 PE-RT Resin is a Polyethylene resin with raised temperature capability produced using UNIPOL II process technology. This product is intended for use in piping systems where high temperatures and aggressive oxidation conditions exist. Suitable applications include hot and cold potable water, industrial piping, and oil field piping applications.

Industrial Standards Compliance:

ASTM D 3350: cell classification PE445574A

Plastics Pipe Institute (PPI): TR-4

Natural Pipe - DOW DGDA-2399 PE-RT Resin

ASTM PE4710 pipe grade - 1600psi HDB @ 23°C

ASTM PE4710 pipe grade - 800psi HDB @ 82.2°C

NSF International

Natural Pipe - DOW DGDA-2399 PE-RT Resin

Standard 14 and 61

Meets requirements of

ASTM F2769, F2623, & F1281

General Information			
Additive	Processing aid		
Agency Ratings	ASTM D 3350 PE445574A		
	ASTM PE4710		
	NSF 14		
	NSF 61		
	PPI TR-4		
Forms	Particle		
Processing Method	Profile extrusion molding		
Physical	Nominal Value	Unit	Test Method
Density <sup>1</sup>	0.950	g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	0.10	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>2</sup> (Yield)	> 24.1	MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break)	> 500	%	ASTM D638
Flexural Modulus	1050	MPa	ASTM D790B
resistant to rapid crack propagation, Pc-S-4(0°C) <sup>4</sup>	> 12.0	bar	ISO 13477
resistant to rapid crack propagation, Tc-S-4 @ 145 psi (10 bar) <sup>5</sup>		°C	ISO 13477
Slow crack propagation PENT-at 2.4 MPa <sup>6</sup>			ASTM F1473
80°C	> 12000	hr	ASTM F1473
90°C	> 6000	hr	ASTM F1473

Thermal Stability	> 220	°C	ASTM D3350
Chlorine Resistance Level	5.00		ASTM F2023/F2769
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact <sup>7</sup> (23°C)	490	J/m	ASTM D256A
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature <sup>8</sup>	< -75.0	°C	ASTM D746A
Melting Temperature (DSC)	132	°C	Internal method
Extrusion	Nominal Value	Unit	
Melt Temperature	193 - 232	°C	
Extrusion instructions			
Fabrication Conditions: Screw Type: High quality HDPE barrier with mixing Melt Temperature Range: 380-450°F (193-232°C)			
NOTE			
1.	Natural resin		
2.	Compression molded parts prepared according to ASTM D 1928 Procedure C. Properties will vary with changes in molding conditions and aging time.		
3.	Compression molded parts prepared according to ASTM D 1928 Procedure C. Properties will vary with changes in molding conditions and aging time.		
4.	The pipe diameter is 10 inches IPS (25.4cm) and the standard diameter ratio (SDR) is 11.		
5.	The pipe diameter is 10 inches IPS (25.4cm) and the standard diameter ratio (SDR) is 11.		
6.	Compression molded parts prepared according to ASTM D 1928 Procedure C. Properties will vary with changes in molding conditions and aging time.		
7.	Compression molded parts prepared according to ASTM D 1928 Procedure C. Properties will vary with changes in molding conditions and aging time.		
8.	Compression molded parts prepared according to ASTM D 1928 Procedure C. Properties will vary with changes in molding conditions and aging time.		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

# 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

