DOWLEX™ NG 2432.10 UE

Polyethylene Resin

The Dow Chemical Company

Technical Data

Product Description

DOWLEX™ NG 2432 UE Polyethylene Resin for rotational and injection moulding from Dow Plastics is specifically designed for applications requiring stiffness in combination with excellent mechanical properties and good processing. The powder version is named DOWLEX™ NG 2432.10 UE Polyethylene Resin.

Processing and Stabilization: DOWLEX™ NG 2432 UE Polyethylene Resin is fully heat and UV-stabilised resulting in a wide processing latitude, good colour retention and long life expectancy.

Note: DOWLEX™ NG 2432 UE Polyethylene Resin should comply with FDA regulation 177.1520 and with most European food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications.

Applications:
- Large tanks
- IBCs
- Canoes
- Boats

General

Material Status	• Commercial: Active	
Literature [1]	• Technical Datasheet	
Search for UL Yellow Card	• The Dow Chemical Company	
Availability	• Europe	
Agency Ratings	• FDA 21 CFR 177.1520	
Forms	• Powder	
Processing Method	• Injection Molding	• Rotational Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.939 g/cm³	0.939 g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.8 g/10 min	3.8 g/10 min	ISO 1133
Environmental Stress-Cracking Resistance			ASTM D1693
122°F (50°C), 10% Antarox, Compression Molded	70.0 hr	70.0 hr	
122°F (50°C), 100% Antarox, Compression Molded	> 1000 hr	> 1000 hr	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress			ISO 527-2
Yield, Compression Molded	2760 psi	19.0 MPa	
Yield, Rotational Molded [3]	2610 psi	18.0 MPa	
Break, Compression Molded	1410 psi	9.70 MPa	
Break, Rotational Molded [3]	1170 psi	8.10 MPa	
Tensile Strain			ISO 527-2
Break, Compression Molded	550 %	550 %	
Break, Rotational Molded [3]	500 %	500 %	
Flexural Modulus - 1% Secant (Compression Molded)	106000 psi	730 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-4°F (-20°C), Rotational Molded [3]	50.9 to 67.9 ft·lb	69.0 to 92.0 J	
-4°F (-20°C), 0.0394 in (1.00 mm), Compression Molded	17.7 ft·lb	24.0 J	
73°F (23°C), Rotational Molded [3]	33.2 to 44.3 ft·lb	45.0 to 60.0 J	
73°F (23°C), 0.0394 in (1.00 mm), Compression Molded	11.1 ft·lb	15.0 J	

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Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness (Shore D, Compression Molded)	59	59	ISO 868
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			ISO 75-2/B
66 psi (0.45 MPa), Unannealed	149 °F	65.0 °C	
Vicat Softening Temperature	253 °F	123 °C	ISO 306/A120
Melting Temperature	262 °F	128 °C	DSC
Peak Crystallization Temperature (DSC)	223 °F	106 °C	DSC

Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

[2] Typical properties: these are not to be construed as specifications.

[3] 3 to 4 mm plate thickness