Technical Data Sheet

POLYTROPE® STR 2030REU-01 NATURAL

Enhanced TPO Polyolefin
Engineering Plastics

Product Description

POLYTROPE STR 2030REU is a flame retardant TPO resin which is UL 94 V-0 and 5VA compliant, RoHS compliant, and specifically designed to provide high melt strength for extrusion, and thermoforming processes. It is non-blooming, and provides balanced impact resistance with stiffness, making it especially suitable for panel and closure applications requiring flame retarding properties. It can be extruded in smooth or textured surfaces, or co-extruded with a POLYTROPE STR enhanced polyolefin cap resin to further customize its' durability, appearance, or feel for interior and exterior applications. The capability of POLYTROPE STR 2030REU to provide an exceptionally smooth surface in extrusion and thermoforming makes it well suited to lamination processes with decorative films. It is also easily colored and is paintable by standard TPO paint systems.

General

Features	• Flame Retardant • Good Melt Strength	• Low CLTE • Paintable	• Recyclable Material • Weather Resistant
Agency Ratings	• UL 94 [1]		
Forms	• Pellets		
Processing Method	• Coextrusion • Extrusion	• Profile Extrusion • Sheet Extrusion	• Thermoforming

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity [2]	1.31	1.31 g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	0.80 g/10 min	0.80 g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
73°F (23°C), 24 hr, 0.125 in (3.18 mm)	0.80 to 1.2 %	0.80 to 1.2 %	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Stress [3] (Yield, 73°F (23°C))	2750 psi	19.0 MPa	ISO 527-2
Tensile Strain [3] (Break, 451°F (233°C))	430 %	430 %	ISO 527-2
Flexural Modulus - Chord [4] (73°F (23°C))	280000 psi	1930 MPa	ISO 178
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact - Flow			ASTM D256
-22°F (-30°C), 0.125 in (3.18 mm), Injection Molded	0.60 ft·lb/in	32 J/m	
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	8.0 ft·lb/in	430 J/m	
Instrumented Dart Impact			ASTM D3763
15°F (-9°C), Total Energy, Ductile Failure	310 in·lb	35.0 J	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			ISO 75-2/Bf
66 psi (0.45 MPa), Unannealed	195 °F	90.6 °C	
CLTE - Flow (-22 to 212°F (-30 to 100°C))	3.0E-5 in/in/°F	5.4E-5 cm/cm/°C	ASTM E831
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Flame Rating			UL 94
0.13 in (3.2 mm), All Colors	HB	HB	
0.06 in (1.6 mm), All Colors	• V-0 • 5VA	• V-0 • 5VA	
Optical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Gardner Gloss			ISO 2813
60°, 125 mil (3180 µm), Thermoformed, Smooth	20 to 40	20 to 40	

Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Sag - 8 inch span, two point support (300°F (149°C), 0.13 in (3.20 mm))	0.0 in	0.00 mm	ASTM D3769

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Notes

[1] In process

[2] Method A

[3] Type 1, 2.0 in/min (50 mm/min)

[4] Type 1A, 0.079 in/min (2.0 mm/min)

Notes

These are typical property values not to be construed as specification limits.