POLYTROPE® STR 2031REU-01 NATURAL

Enhanced TPO Polyolefin

A. Schulman Inc.

Message:

POLYTROPE STR 2031REU is a flame retardant TPO resin which is UL 94 V-1 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 structural 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 2031REU 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 Information	
Features	Flame Retardant
	Good Melt Strength
	Good Weather Resistance
	Low CLTE
	Paintable
	Recyclable Material
Forms	Pellets
Processing Method	Coextrusion
	Film Extrusion
	Profile Extrusion
	Sheet Extrusion
	Thermoforming

Physical	Nominal Value	Unit	Test Method
Specific Gravity [1]	1.18	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	0.80	g/10 min	ISO 1133
Molding Shrinkage (23°C, 24 hr, 3.18 mm)	0.90 to 1.3	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2] (Yield, 23°C)	21.4	MPa	ISO 527-2
Tensile Strain [3] (Break, 233°C)	550	%	ISO 527-2
Flexural Modulus - Chord [4] (23°C)	1790	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact - Flow			ASTM D256
-30°C, 3.18 mm, Injection Molded	53	J/m	
23°C, 3.18 mm, Injection Molded	680	J/m	
Instrumented Dart Impact (-20°C, Total Energy, Ductile Failure)	46.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**

Heat Deflection Temperature (0.45 MPa, Unannealed)	87.8	°C	ISO 75-2/Bf
CLTE - Flow (-30 to 100°C)	5.6E-5	cm/cm/°C	ASTM E831
Flammability	**Nominal Value**		**Test Method**
Flame Rating			UL 94
3.18 mm, All Colors	HB		
1.59 mm, All Colors	V-1		
Optical	**Nominal Value**		**Test Method**
Gardner Gloss (60°, 3180 µm, Thermoformed, Smooth)	20 to 40		ISO 2813
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Heat Sag - 8 inch span, two point support (149°C, 3.20 mm)	0.00	mm	ASTM D3769
NOTE			
1.	Method A		
2.	Type 1, 50 mm/min		
3.	Type 1, 50 mm/min		
4.	Type 1A, 2.0 mm/min		

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