

Technical Data Sheet



RONFALIN[®] ABS 1443 LE U

Acrylonitrile Butadiene Styrene
Engineering Plastics

Product Description

Low Emission ABS compound with increased heat distortion temperature and impact strength, UV stabilized. (Former name: POLYMAN ABS M/HI W LE UV)

General

Features	• Good Flow
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• ABS

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	17 cm ³ /10min	17 cm ³ /10min	ISO 1133
Molding Shrinkage	0.40 to 0.70 %	0.40 to 0.70 %	ISO 294-4
VOC Content	< 50.0 µgC/g	< 50.0 µgC/g	VDA 277

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	334000 psi	2300 MPa	ISO 527-2/1A/1
Tensile Stress			ISO 527-2/1A/50
Yield	6240 psi	43.0 MPa	
Break	5220 psi	36.0 MPa	
Tensile Strain (Yield)	2.9 %	2.9 %	ISO 527-2/1A/50
Nominal Tensile Strain at Break	12 %	12 %	ISO 527-2/1A/50
Flexural Modulus ¹	377000 psi	2600 MPa	ISO 178
Flexural Stress ¹ (4.6% Strain)	10700 psi	74.0 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	3.8 ft·lb/in ²	8.0 kJ/m ²	
73°F (23°C)	10 ft·lb/in ²	22 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	No Break	No Break	
73°F (23°C)	No Break	No Break	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 358/30)	15100 psi	104 MPa	ISO 2039-1

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	198 °F	92.0 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	183 °F	84.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	234 °F	112 °C	ISO 306/A50
--	216 °F	102 °C	ISO 306/B50

Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+13 ohms·m	> 1.0E+13 ohms·m	IEC 62631-3-1
Comparative Tracking Index (Solution A)	600 V	600 V	IEC 60112

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	ISO 3795
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	FMVSS 302
Flammability Classification			IEC 60695-11-10, -20
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 in (1.5 mm)	1290 °F	700 °C	
0.12 in (3.0 mm)	1290 °F	700 °C	

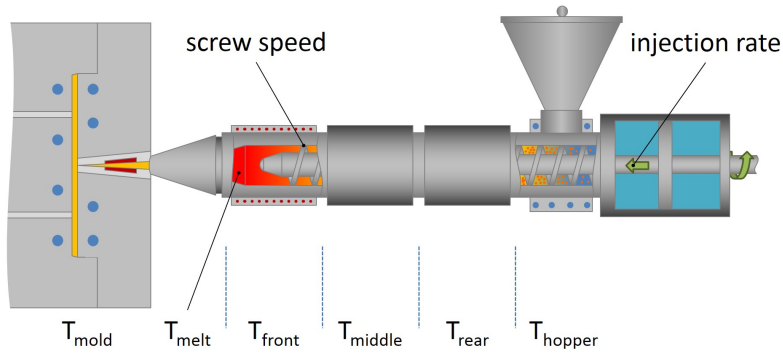
Additional Information

- 1.) Not for use in food contact applications
- 2.) Not for use in medical or pharmaceutical applications

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Regrind	30 %	30 %
Processing (Melt) Temp	446 to 482 °F	230 to 250 °C
Mold Temperature	104 to 176 °F	40 to 80 °C