

Technical Data Sheet

# RONFALIN<sup>®</sup> MABS 2223

Methyl Methacrylate / ABS  
Engineering Plastics

**Product Description**

Good flow, high impact transparent ABS grade. (Former name: POLYLUX MABS TYP C2)

**General**

Appearance	• Clear/Transparent
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• MABS

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.09 g/cm <sup>3</sup>	1.09 g/cm <sup>3</sup>	ISO 1183/A
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	19 cm <sup>3</sup> /10min	19 cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage	0.40 to 0.70 %	0.40 to 0.70 %	ISO 294-4

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	290000 psi	2000 MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	6670 psi	46.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	3.8 %	3.8 %	ISO 527-2/1A/50

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	4.3 ft·lb/in <sup>2</sup>	9.0 kJ/m <sup>2</sup>	
73°F (23°C)	6.7 ft·lb/in <sup>2</sup>	14 kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	30 ft·lb/in <sup>2</sup>	62 kJ/m <sup>2</sup>	
73°F (23°C)	38 ft·lb/in <sup>2</sup>	79 kJ/m <sup>2</sup>	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 358/30)	12900 psi	89.0 MPa	ISO 2039-1

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	187 °F	86.0 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	167 °F	75.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	214 °F	101 °C	ISO 306/A50
--	199 °F	93.0 °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	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 Flammability Index			IEC 60695-2-12
0.06 in (1.5 mm)	1250 °F	675 °C	
0.12 in (3.0 mm)	1250 °F	675 °C	
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 medical or pharmaceutical applications.

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 °F	70 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Processing (Melt) Temp	392 to 464 °F	200 to 240 °C
Mold Temperature	104 to 176 °F	40 to 80 °C

**Notes**

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