

Technical Data

Product Description

MD231U is a 20% mineral filled polypropylene compound intended for injection moulding.

This material has excellent balanced mechanical properties and a medium melt flow rate.

Applications

MD231U is designed for:

- Air ducts
- Air conditioning parts
- Air filters
- Automotive under the bonnet parts

Special Features

- Long term high heat stabilised
- High dimensional stability
- UL registered under File E108112
- Low shrinkage

General

Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
UL Yellow Card ²	• E108112-218651		
Search for UL Yellow Card	• Borealis AG		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Mineral, 20% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Heat Stabilized	• Low Shrinkage	• Recyclable Material
	• High Dimensional Stability	• Medium Flow	
Uses	• Automotive Applications	• Automotive Under the Hood	• Filters
Processing Method	• Injection Molding		
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)	• Secant Modulus vs. Strain (ISO 11403-1)	

Physical	Nominal Value Unit	Test Method
Density	1.05 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	6.0 g/10 min	ISO 1133
Mechanical	Nominal Value Unit	Test Method
Tensile Stress	36.0 MPa	ISO 527-2/50
Flexural Modulus ⁴	2700 MPa	ISO 178
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179/1eA
-20°C	1.0 kJ/m ²	
23°C	3.0 kJ/m ²	
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ISO 75-2/B
0.45 MPa, Unannealed	125 °C	
Additional Information	Nominal Value Unit	Test Method
Emission	< 50.0 µgC/g	VDA 277
Fogging - 16 hr (100°C)	< 2.0 mg	DIN 75201



Injection**Nominal Value Unit**

Drying Temperature	80 °C
Drying Time	2.0 hr
Hopper Temperature	40 to 80 °C
Processing (Melt) Temp	220 to 260 °C
Mold Temperature	30 to 50 °C
Holding Pressure	30.0 to 60.0 MPa

Injection Notes

Flow front speed: 100 to 200 mm/s

Screw speed: Low to medium

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 A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 2.0 mm/min



Where to Buy**Supplier****Borealis AG**

Vienna, Vienna Austria

Telephone: +43-122-400-302**Web:** <http://www.borealisgroup.com/>**Distributor****Biesterfeld***Biesterfeld is a Pan European distribution company. Contact Biesterfeld for availability of individual products by country.***Telephone:** +49-40-32008-0**Web:** <http://www.biesterfeld-plastic.com/>**Availability:** Bosnia and Herzegovina, Bulgaria, Ireland, Romania, Serbia, Turkey, United Kingdom**M. Holland Canada Company****Telephone:** 905-665-1168**Web:** <http://www.mholland.com/>**Availability:** Canada**M. Holland Company****Telephone:** 855-497-1403**Web:** <http://www.mholland.com/>**Availability:** Mexico, United States**Nexeo Plastics - Europe***Nexeo Plastics is a Pan European distribution company. Contact Nexeo for availability of individual products by country.***Telephone:** +34-93-480-9125**Web:** <https://www.nexeoplastics.com/>**Availability:** Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Spain, Sweden, Switzerland, United Kingdom