Versollan™ OM 1255NX-431C

Thermoplastic Elastomer

Key Characteristics

Product Description			
Versollan™ OM 1255NX-431C is a performance TPU alloy designed for thin wall overmolding onto polycarbonate (PC), ABS and PC/ABS substrates.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific		
Features	• Good Moldability	• Good Processability	• Low Gloss
Uses	• Business Equipment • Consumer Applications • Electrical/Electronic Applications	• Flexible Grips • Overmolding • Power/Other Tools	• Thin-walled Parts
RoHS Compliance	• RoHS Compliant		
Appearance	• Grey		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.05	1.05	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (300% Strain, 73°F (23°C))	582 psi	4.01 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	1390 psi	9.56 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	660 %	660 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	59	59	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	17.4 Pa·s	17.4 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	140 to 194 °F	60 to 90 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	< 0.030 %	< 0.030 %
Rear Temperature	325 to 370 °F	163 to 188 °C
Middle Temperature	360 to 390 °F	182 to 199 °C
Front Temperature	360 to 446 °F	182 to 230 °C
Nozzle Temperature	360 to 446 °F	182 to 230 °C
Mold Temperature	70 to 120 °F	21 to 49 °C
Back Pressure	0.00 to 80.0 psi	0.00 to 0.552 MPa
Screw Speed	75 to 125 rpm	75 to 125 rpm

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Injection Notes

Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polyethylene (PE) or polypropylene (PP).

The Versollan™ OM 1255NX-431C should not be left in the barrel for extended idle periods (greater than 5 minutes).

Suggested Dewpoint: -40°F

Injection Speed: 0.5 to 2 in/sec
1st Stage - Boost Pressure: 200 to 800 psi
2nd Stage - Hold Pressure: 30% of Boost
Hold Time (Thick Part): 4 to 10 sec
Hold Time (Thin Part): 1 to 3 sec

Notes

[1] Typical values are not to be construed as specifications.

[2] Die C

[3] 2 hr

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