Versollan™ OM 1262NX-1

Thermoplastic Elastomer

Key Characteristics

Product Description

Versollan™ OM 1262NX-1 is a performance TPU alloy designed for thin-wall overmolding onto polycarbonate (PC), ABS and PC/ABS substrates.

- Excellent Grip with Matte, Rubbery Finish
- Proven Track Record
- Superior Adhesion to PC, ABS, PC/ABS, PC/PBT and Copolyester

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Latin America • North America	
Features	• Good Colorability • Good Moldability	• Good Processability • Low Gloss	
Uses	• Business Equipment • Consumer Applications • Electrical/Electronic Applications	• Flexible Grips • Overmolding • Power/Other Tools	• Thin-walled Parts
Agency Ratings	• UL 94		
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.17	1.17	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	11 g/10 min	11 g/10 min	
200°C/5.0 kg	64 g/10 min	64 g/10 min	
Molding Shrinkage - Flow	9.0E-3 to 0.015 in/in	0.90 to 1.5 %	ASTM D955
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (100% Strain, 73°F (23°C))	370 psi	2.55 MPa	ASTM D412
Tensile Stress [2, 3] (300% Strain, 73°F (23°C))	485 psi	3.34 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	1110 psi	7.64 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	710 %	710 %	ASTM D412
Tear Strength	230 lbf/in	40.3 kN/m	ASTM D624
Compression Set (73°F (23°C), 22 hr)	35 %	35 %	ASTM D395B
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	65	65	ASTM D2240
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating (0.06 in (1.5 mm))	HB	HB	UL 94

Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	20.0 Pa·s	20.0 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	120 to 130 °F	49 to 54 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	< 0.030 %	< 0.030 %
Suggested Max Regrind	20 %	20 %
Rear Temperature	325 to 370 °F	163 to 188 °C
Middle Temperature	360 to 390 °F	182 to 199 °C
Front Temperature	370 to 410 °F	188 to 210 °C
Nozzle Temperature	380 to 420 °F	193 to 216 °C
Mold Temperature	70 to 100 °F	21 to 38 °C
Back Pressure	0.00 to 80.0 psi	0.00 to 0.552 MPa
Screw Speed	25 to 75 rpm	25 to 75 rpm

Injection Notes

Color concentrates with polyether or polyester-based urethane carriers are most suitable for coloring Versollan™ OM 1262NX-1. Typical letdown ratios are 50:1 to 25:1 - loading levels should be as low as possible to minimize the effect on hardness. A high color match consistency can be obtained by the use of precolored compounds available from GLS. Polypropylene (PP) based color concentrates are not recommended because they significantly affect adhesion of the TPE to the substrate. Concentrates based on TPE should not be used. The final determination of color concentrate suitability should be determined by customer trials.

Regrind levels up to 20% can be used with Versollan™ OM 1262NX-1 with minimal property loss, provided that the regrind is free of contamination. To minimize losses during molding, the melt temperature should remain as low as possible. The final determination of regrind effectiveness should be determined by the customer.

Versollan™ OM 1262NX-1 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 900 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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