Versaflex™ TF 5845N

Thermoplastic Elastomer

Key Characteristics

Product Description

Versaflex™ TF 5845N is an easy processing TPE desinged for clothing industry.

- Overmold Adhesion to Polypropylene
- Soft touch
- Compliant with oeko textile 100-2

General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific	• Europe	• North America
Features	• Conformable • Good Processability	• Heat Aging Resistant • Soft	
Uses	• Fabrics	• Soft Touch Applications	
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.890	0.890	ASTM D792
Melt Mass-Flow Rate (MFR) (170°C/2.16 kg)	15 g/10 min	15 g/10 min	ASTM D1238
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (300% Strain, 73°F (23°C))	419 psi	2.89 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	754 psi	5.20 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	680 %	680 %	ASTM D412
Tear Strength [3] (73°F (23°C))	156 lbf/in	27.3 kN/m	ASTM D624
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	45	45	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	8.80 Pa·s	8.80 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	302 to 338 °F	150 to 170 °C
Front Temperature	356 to 410 °F	180 to 210 °C
Nozzle Temperature	356 to 410 °F	180 to 210 °C
Mold Temperature	75 to 150 °F	24 to 66 °C
Back Pressure	0.00 to 80.0 psi	0.00 to 0.552 MPa

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Injection Notes

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or polyethylene (PE) carrier are most suitable for coloring Versaflex™ TF 5845N. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25 - 40 g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. Liquid color can be used, but mineral oil based carriers may have a significant effect on the final hardness value. Concentrates based on PVC should not be used. A high color match consistency can be obtained by using precolored compounds available from GLS. The final determination of color concentrate suitability should be determined by customer trials.

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

Regrind levels up to 20% can be used with Versaflex™ TF 5845N 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.

Versaflex™ TF 5845N has excellent melt stability. Maximum residence times may vary, depending on the size of the barrel. Generally, the barrel should be emptied if it is idle for periods of 8 - 10 minutes or longer.

Drying is not Required

Injection Speed: 0.5 to 3 in/sec
1st Stage - Boost Pressure: 400 to 900 psi

Notes

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

[2] Die C

[3] 2 hr

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