Versaflex™ TF 5820N

Thermoplastic Elastomer

Key Characteristics

Product Description

Versaflex™ TF 5820N is an easy processing TPE desinged for clothing industry.Versaflex™ TF 5820N is desinged for textile laminated fabric adhesion applications where it can offer

- Excellence recovery with softness
- Adhesion to Polyester or Polyamide Fabric
- Compliant with oeko textile 100-2

Versaflex™ TF 5820N is also environmentally friendly, no plasticizer solution that enables new design and performance possibilities.

General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific	• Europe	• North America
Features	• Bondability • Conformable	• Excellent Elastic Recovery • 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	0.910	0.910	ASTM D792
Melt Mass-Flow Rate (MFR) (150°C/2.16 kg)	20 g/10 min	20 g/10 min	ASTM D1238
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (300% Strain, 73°F (23°C))	98.6 psi	0.680 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	566 psi	3.90 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	860 %	860 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	20	20	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
338°F (170°C), 11200 sec^-1	10.6 Pa·s	10.6 Pa·s	

Processing Information

Extrusion	Typical Value (English)	Typical Value (SI)
Melt Temperature	284 to 356 °F	140 to 180 °C
Die Temperature	338 to 392 °F	170 to 200 °C

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Extrusion Notes

Rear:80-120°C
Center:140-180°C
Front:160-200°C
Screw speed:50-300RPM
Drying is not Required.

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or polyethylene (PE) carrier are most suitable for coloring Versaflex™ TF 5820N. 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 (10 - 40 MFR) polyethylene (PE) or polypropylene (PP).

The use of regrind is not recommended for Versaflex™ TF 5820N.

Notes

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

[2] Die C

[3] 2 hr

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