

PRODUCT DESCRIPTION

UNISOFT STANDARD ST-80A-NT-1-97F

SEBS-based Thermoplastic Elastomer (TPE). This compound is in compliance with FDA regulations for food contact. This compound is designed for compliance to NSF-51 and NSF-61.

GENERAL INFORMATION

FEATURES	Easily Colorable Heat Stabilized Excellent Chemical Resistance High Strength Low Density Excellent Ozone Resistance
COMPLIANCES	RoHS REACH FMVSS 302
FORM	Pellets
PROCESSING METHOD	Injection Molding Overmolding
INDUSTRIES	Automotive Consumer Industrial
APPLICATIONS	General Purpose Compound
ADHESION	PP PP-GF
COLOR/APPEARANCE	Natural
RELATIVE VISCOSITY	High Flow
STATUS	Active
AVAILABILITY	North America South America Asia Pacific Europe Latin America Africa
SUPPLIER	UNITED SOFT PLASTICS, INC.

PROPERTIES

PHYSICAL	ENGLISH UNITS	SI UNITS	TEST METHOD
Specific Gravity	0.97 g/cc	0.97 g/cc	ASTM D792
Shore Hardness (A)	80	80	ASTM D2240
Shore Hardness (D)	28	28	ASTM D2240
Shrinkage (max)	1.7 %	1.7 %	ASTM D955
Shrinkage (min)	1 %	1 %	ASTM D955

MECHANICAL	ENGLISH UNITS	SI UNITS	TEST METHOD
Tensile Strength	1600 psi	11 MPa	ASTM D412
Tensile Elongation	475 %	475 %	ASTM D412
100% Modulus	800 psi	5.5 MPa	ASTM D412

PROCESSING

INJECTION	ENGLISH UNITS	SI UNITS
Drying Temperature	160 °F	70 °C
Drying Time	1.5-2 hours	1.5-2 hours
Rear Temperature	320 - 345 °F	160 - 175 °C
Middle Temperature	340 - 385 °F	170 - 195 °C
Front Temperature	355 - 400 °F	180 - 205 °C
Nozzle Temperature	355 - 400 °F	180 - 205 °C

Mold Temperature	85 - 160 °F	30 - 70 °C
Injection Pressure	200-1600 psi	1.4 - 11.0 MPa
Back Pressure	10 - 50 psi	0.07 - 0.35 Mpa
Injection Speed	1.2 - 4.0 in/s	30 -100 mm/s
Screw Speed	50-200 RPM	50-200 RPM
Screw Cushion	5 - 15%	5 - 15%
Screw L/D	1:15 to 1:30	1:15 to 1:30
Screw Compression Ratio	1:1.2 to 1:3.5	1:1.2 to 1:3.5
Max Regrind	10%	10%

NOTES

PROCESSING	Unisoft products have a wide temperature processing window from 340 °F - 450 °F (170 °C - 230 °C). Process conditions on this data sheet are given as a starting point.
DRYING	Drying is not necessary but is recommended to help reduce variation in the product caused by variations in weather and temperature.
ADHESION	To increase adhesive bond strength during overmolding and coextrusion processes, increase temperatures in the front and nozzle/die zones in steps of 10 °F/5 °C.
SHEAR	Unisoft materials are shear dependent materials, with higher viscosities at high shear rates and lower viscosities at lower shear rates. Materials will exhibit higher viscosity and increased temperature when flowing through a constricted area in a tool.
PURGING	Purge thoroughly before and after use of this product, either with a purge compound or with low MFI PP or PE.
COLORING	Material is easily colored using PE- and PP-based color concentrates. Recommended concentrate addition levels are between 1-3%.
SHRINKAGE	Shrinkage of Unisoft materials is higher in the flow direction and lower in the crossflow direction. Part shrinkage will depend on the flow path of the polymer within the mold.
OTHER	Values given are typical and are not to be used as a material specification.
QUESTIONS?	For technical questions or support, please email support@unitedsoftplastics.com .