



UNITED SOFT PLASTICS

# Product Information

## UNISOFT TPE™ ST-45A-NT-1-01

**DESCRIPTION** TPE Compound based on Styrene-Ethylene/Butylene-Styrene Block Copolymer

**FEATURES** Standard grade with adhesion to Polypropylene, low hardness; excellent processing;

**APPLICATIONS** Unisoft TPE™ **ST-45A-NT-1-01** is a general grade intended for use in injection molding.

**COLOR** Natural color (about RAL 9010)

**SUPPLIER** UNITED SOFT PLASTICS, INC.  
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MECHANICAL PROPERTIES	TEST METHOD	ENGLISH - UNITS	SI - UNITS
SHORE HARDNESS	ASTM D - 2240	45 A	45 A
SPECIFIC GRAVITY	ASTM D - 792	1.11 ( g / cc )	1.11 ( g / cc )
TENSILE STRENGTH	ASTM D - 412	450 ( psi )	3.1 ( Mpa )
ELONGATION AT BREAK	ASTM D - 412	600 ( % )	600 ( % )

## PROCESSING INFORMATION

**PROCESSING INFORMATION** Injection Molding (preferable standard 2-component injection molding machine to get adhesion to substrate), Extrusion

**PURGING** Purge thoroughly before and after use of this product (e.g. Polypropylene with MFI between 0.5 – 2.5)

**DRYING TIME** Material is not hygroscopic and drying is only necessary if material was stored under moisture.

**COLORING** Material can be easily colored with standard color concentrates used for coloring Polypropylene.

**SHRINKAGE PROPERTIES** Unisoft TPE™ grades are anisotropic materials. Their shrinkage properties are higher in the flow direction, and the shrinkage in the cross-flow direction is less. Unisoft TPE™ **ST-45A-NT-1-01** shows shrinkage values between 1.0– 3.0 %.

**RHEOLOGICAL PROPERTIES** Actual rheological data of Unisoft TPE™ materials are shear dependence. Viscosity will decrease at higher shear rates, and should be considered during injection molding design and setup of processing conditions.

**MOLDING TEMPERATURES**

Rear	320 - 355 °F	160 - 180 °C
Front	355 - 395 °F	180 - 200 °C
Nozzle	395 - 410 °F	200 - 210 °C
Mold	85 - 150 °F	30 - 65 °C

## NOTICE

The properties shown are typical values and are not intended as product specification. All information given should serve only as a guide. There is no implied warranty of merchantability or fitness for a particular purpose. Establishing satisfactory performance of the product for the intended application is the customer's role responsibility. No warranty is given concerning the existence or non-existence of any patents claiming any pertinent subject matter presented herein.