



UNITED SOFT PLASTICS

# Product Information

## UNISOFT TPE™ ST-45A-BK-1-01

<b>DESCRIPTION</b>	TPE Compound based on Styrene-Ethylene/Butylene-Styrene Block Copolymer
<b>FEATURES</b>	Standard grade with adhesion to Polypropylene, low hardness; excellent processing;
<b>APPLICATIONS</b>	Unisoft TPE™ <b>ST-45A-BK-1-01</b> is a general grade intended for use in injection molding.
<b>COLOR</b>	Black (about RAL 9005)
<b>SUPPLIER</b>	UNITED SOFT PLASTICS, INC. 720 Raco Drive Lawrenceville, GA 30045 - USA Assistance: +1 404 543 3527

MECHANICAL PROPERTIES	TEST METHOD	ENGLISH - UNITS	SI - UNITS
SHORE HARDNESS	ASTM D - 2240	45 A	45 A
SPECIFIC GRAVITY	ASTM D - 792	1.15 ( g / cc )	1.15 ( g / cc )
TENSILE STRENGTH	ASTM D - 412	700 ( psi )	4.8 ( Mpa )
ELONGATION AT BREAK	ASTM D - 412	700 ( % )	700 ( % )

## PROCESSING INFORMATION

<b>PROCESSING INFORMATION</b>	Injection Molding (preferable standard 2-component injection molding machine to get adhesion to substrate), Extrusion		
<b>PURGING</b>	Purge thoroughly before and after use of this product (e.g. Polypropylene with MFI between 0.5 – 2.5)		
<b>DRYING TIME</b>	Material is not hygroscopic and drying is only necessary if material was stored under moisture.		
<b>COLORING</b>	Material is already pre-colored.		
<b>SHRINKAGE PROPERTIES</b>	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™ <b>ST-45A-BK-1-01</b> shows shrinkage values between 1.0– 2.5 %.		
<b>RHEOLOGICAL PROPERTIES</b>	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.		
<b>MOLDING TEMPERATURES</b>	Rear	320 - 355 °F	160 - 180 °C
	Front	355 - 395 °F	180 - 200 °C
	Nozzle	395 - 420 °F	200 - 215 °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.