

ColorRx® TPE-1045

Americhem - Thermoplastic Elastomer

General Information

Product Description

ColorRx TPE-1045 is an injection molding grade of thermoplastic elastomer (TPE) with Shore-A hardness of 45. It demonstrates good adhesion to multiple substrates and overmolding. Suitable for healthcare applications.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Biocompatible • E-beam Sterilizable	• Ethylene Oxide Sterilizable • Excellent Colorability	• Radiation Sterilizable
Uses	• Engineering Parts	• Medical/Healthcare Applications	• Surgical Instruments
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.980		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	7.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength ² (Break)	495	psi	ASTM D412
Tensile Elongation ² (Break)	700	%	ASTM D412
Tear Strength	100	lbf/in	ASTM D624
Compression Set (73°F, 22 hr)	16	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	45		ASTM D2240

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	340 to 370	°F
Middle Temperature	379 to 430	°F
Front Temperature	379 to 441	°F
Nozzle Temperature	410 to 441	°F
Processing (Melt) Temp	410 to 430	°F
Mold Temperature	55 to 100	°F
Screw Speed	25 to 75	rpm

Notes

¹ Typical properties: these are not to be construed as specifications.

² 2.0 in/min

