ColorRx® TPE-1045

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.

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.978	g/cm³	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)	3.41	MPa	ASTM D412
Tensile Elongation [2] (Break)	700	%	ASTM D412
Tear Strength	17.5	kN/m	ASTM D624
Compression Set (23°C, 22 hr)	16	%	ASTM D395

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	45		ASTM D2240

Injection	Nominal Value	Unit
Rear Temperature	171 to 188	°C
Middle Temperature	193 to 221	°C
Front Temperature	193 to 227	°C
Nozzle Temperature	210 to 227	°C
Processing (Melt) Temp	210 to 221	°C
Mold Temperature	13 to 38	°C
Screw Speed	25 to 75	rpm

Notes

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

[2] 51 mm/min

Properties provided are only typical values and Americhem assumes no liability for the customer's use of the information provided. The customer assumes all responsibility for testing determining this products suitability in the customer's specific end application.

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