



Monprene® CP-16555 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

The Monprene® CP-16500 series of thermoplastic elastomers (TPEs) is specifically designed for dog toys, offering a sustainable alternative to thermoset rubber with excellent recyclability. Available from 25 to 65 Shore A, these TPEs are formulated with only FDA listed ingredients and mold thick and thin parts with ease. Monprene CP-16555 is an opaque, low gloss specialty TPE that offers superior puncture resistance and excellent tear strength.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Adhesion • Good Colorability • Good Flexibility • Good Melt Strength • Good Moldability	• Good Processability • Good Tear Strength • Good Toughness • Halogen Free • High Elongation • High Tensile Strength	• Low Density • Low Flow • Low Gloss • Medium Hardness • Resilient • Without Fillers
Uses	• Consumer Applications • Flexible Grips • Knobs	• Overmolding • Plugs • Rubber Replacement	• Soft Touch Applications • Toys
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.70	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	236	psi	
Flow : 100% Strain	369	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	446	psi	
Flow : 300% Strain	569	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1130	psi	
Flow : Break	928	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	670	%	
Flow : Break	540	%	
Tear Strength ²			ASTM D624
Across Flow	205	lbf/in	
Flow	161	lbf/in	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	58		
Shore A, 5 sec, Injection Molded	55		

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Processing Information		
Injection	Nominal Value	Unit
Rear Temperature	340 to 440	°F
Middle Temperature	340 to 440	°F
Front Temperature	340 to 440	°F
Nozzle Temperature	340 to 440	°F
Processing (Melt) Temp	340 to 440	°F
Mold Temperature	60 to 90	°F
Injection Pressure	200 to 800	psi
Injection Rate	Fast	

Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

Notes

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

² Die C, 20 in/min