



## EZPRENE® 9545A PA

ENPLAST Americas, a Ravago Group Company - Thermoplastic Vulcanizate

Wednesday, November 6, 2019

### General Information

#### Product Description

45 Shore A TPE (Thermoplastic Vulcanizate) boundable to nylon. Available in black, natural for injection molding applications with long flow lengths or requires highly cosmetic surface. This soft, easy to color material is non-hygroscopic and offers excellent chemical resistance and physical properties. EZPrene 9500 series materials are polyolefin based and 100% recyclable.

#### General

Material Status	• Commercial: Active		
Availability	• North America		
Features	• Chemical Resistant • Fatigue Resistant • Good Adhesion	• Good Colorability • Low to No Water Absorption • Ozone Resistant	• Recyclable Material • Soft • UV Resistant
Appearance	• Black	• Natural Color	
Processing Method	• Injection Molding		

### ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.922		ASTM D792
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	116	psi	ASTM D412
Tensile Strength (Break)	377	psi	ASTM D412
Tensile Elongation (Break)	420	%	ASTM D412
Tear Strength	103	lbf/in	ASTM D624
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 5 sec, Extruded	45		
Shore A, 5 sec, Injection Molded	48		
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-94.0	°F	ASTM D746
Dynamic Service Temperature	266	°F	

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	2.0 to 3.0	hr
Rear Temperature	375 to 400	°F
Middle Temperature	385 to 410	°F
Front Temperature	385 to 410	°F
Nozzle Temperature	410 to 430	°F
Processing (Melt) Temp	390 to 430	°F
Mold Temperature	75 to 125	°F
Injection Pressure	750 to 1300	psi
Injection Rate	Fast	
Screw Speed	50 to 200	rpm
Clamp Tonnage	2.0 to 3.5	tons/in <sup>2</sup>
Cushion	0.200 to 0.500	in

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## Injection Notes

Holding Time: 5 to 7 Sec.  
Cooling Time: 30 to 50 Sec.

Extrusion	Nominal Value	Unit
Hopper Temperature	330 to 350	°F
Cylinder Zone 1 Temp.	340 to 375	°F
Cylinder Zone 2 Temp.	340 to 375	°F
Cylinder Zone 3 Temp.	340 to 375	°F
Cylinder Zone 4 Temp.	340 to 375	°F
Cylinder Zone 5 Temp.	340 to 375	°F
Adapter Temperature	375 to 410	°F
Melt Temperature	375 to 390	°F
Die Temperature	375 to 410	°F
Screw L/D Ratio	24.0:1.0	

## Extrusion Notes

Compression Zone: 355 to 390 °F (180 to 200 °C)  
Metering Zone: 375 to 410 °F (190 to 210 °C)  
Cooling Water: 60 to 85 °F (15 to 30 °C)  
Screw Speed: 100 to 200 rpm  
Screen Pack: 20/40/60

## Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.