



ENFLEX® EA3555A

ENPLAST Americas, a Ravago Group Company - Thermoplastic Elastomer

Tuesday, November 5, 2019

General Information

Product Description

55 Shore A TPE (Styrenic Block Copolymer based) for injection molding and extrusion applications. This grade offers soft/tactile feel and adhesion (overmolding) to Nylon.

General

Material Status	• Commercial: Active		
Availability	• North America		
Features	• Acid Resistant	• Good Colorability	• Recyclable Material
	• Alcohol Resistant	• Good Processability	• Soft
	• Base Resistant	• High Elasticity	• Solvent Resistant
	• Detergent Resistant	• Oil Resistant	• UV Resistant
	• Good Adhesion	• Ozone Resistant	
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.950		ASTM D792
Melt Mass-Flow Rate (230°C/2.16 kg)	8.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	215	psi	ASTM D412
Tensile Strength (Break)	698	psi	ASTM D412
Tensile Elongation (Break)	570	%	ASTM D412
Tear Strength	150	lbf/in	ASTM D624
Compression Set			ASTM D395B
73°F, 22 hr	20	%	
158°F, 22 hr	45	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 10 sec, Extruded	55		
Shore A, 10 sec, Injection Molded	58		
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-67.0	°F	ASTM D746
Dynamic Service Temperature	194	°F	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	140 to 158	°F
Drying Time	2.0 to 3.0	hr
Rear Temperature	340 to 390	°F
Middle Temperature	445 to 465	°F
Front Temperature	465 to 480	°F
Nozzle Temperature	430 to 465	°F
Processing (Melt) Temp	445 to 480	°F
Mold Temperature	50 to 120	°F
Injection Pressure	750 to 1300	psi

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Injection	Nominal Value	Unit
Injection Rate	Fast	
Screw Speed	50 to 200	rpm
Clamp Tonnage	2.5 to 3.5	tons/in ²
Cushion	0.200 to 0.500	in

Injection Notes

Holding Time: 5 to 7 Sec.

Extrusion	Nominal Value	Unit
Drying Temperature	140 to 158	°F
Drying Time	2.0 to 3.0	hr
Hopper Temperature	320 to 355	°F
Cylinder Zone 1 Temp.	445 to 465	°F
Cylinder Zone 3 Temp.	465 to 480	°F
Cylinder Zone 5 Temp.	465 to 480	°F
Adapter Temperature	445 to 480	°F
Melt Temperature	445 to 480	°F
Die Temperature	445 to 480	°F
Screw L/D Ratio	24.0:1.0	

Extrusion Notes

Screw: L/D 20:1 or greater (L/D 24:1 preferred)

Cooling Water: 60 - 85°F (15-30°C)

Screw Speed: 100 - 200 rpm

Screen Pack: 20/40/60

Notes

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