



ENFLEX® EA3770A

ENPLAST Americas, a Ravago Group Company - Thermoplastic Elastomer

Tuesday, November 5, 2019

General Information

Product Description

70 Shore A TPE (Styrenic Block Copolymer based) available in black and natural for injection molding and extrusion applications. This grade offers soft/tactile feel and adhesion (overmolding or co-extrusion) to ABS, PC and HIPS/PS.

General

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

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.990		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	7.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	275	psi	ASTM D412
Tensile Strength (Break)	870	psi	ASTM D412
Tensile Elongation (Break)	550	%	ASTM D412
Tear Strength	190	lbf/in	ASTM D624
Compression Set			ASTM D395B
73°F, 22 hr	25	%	
158°F, 22 hr	65	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 10 sec, Extruded	67		
Shore A, 10 sec, Injection Molded	70		
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-40.0	°F	ASTM D746
Dynamic Service Temperature	194	°F	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	130 to 160	°F
Rear Temperature	300 to 340	°F
Middle Temperature	340 to 375	°F
Front Temperature	390 to 430	°F
Nozzle Temperature	390 to 430	°F
Processing (Melt) Temp	375 to 410	°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	Nominal	Value	Unit
Holding Time: 5 to 7 Sec.			

Extrusion	Nominal	Value	Unit
Drying Temperature		130 to 160	°F
Hopper Temperature		300 to 340	°F
Cylinder Zone 1 Temp.		340 to 375	°F
Cylinder Zone 3 Temp.		340 to 375	°F
Cylinder Zone 5 Temp.		355 to 390	°F
Adapter Temperature		355 to 410	°F
Melt Temperature		375 to 430	°F
Die Temperature		355 to 410	°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.