

ENFLEX S4040 OO2

Thermoplastic Elastomer

ENPLAST Americas, a Ravago Group Company

Message:

40 Shore 00 TPE (Styrenic Block Copolymer based) available in black and natural. This grade is designed for injection molding applications. Material is translucent ultra-soft, gel like and is used for cushions, pads, orthotics, prosthetics and soft novelty items.

General Information			
Features	Solvent resistance		
	Good UV resistance		
	Recyclable materials		
	Workability, good		
	Ozone resistance		
	alkali resistance		
	Alcohol resistance		
	acid resistance		
	Detergent resistance		
	Oil resistance		
	Soft		
Uses	Shock Absorbing Pad		
	Soft touch application		
	Repair Repair		
Appearance	Translucent		
	Black		
	Natural color		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.868	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (150°C/2.16 kg)	12	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 10 seconds, injection molding	2		ASTM D2240
Shore OO, 10 seconds, injection molding	40		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	0.138	MPa	ASTM D412

Tensile Strength (Break)	2.24	MPa	ASTM D412
Tensile Elongation (Break)	> 800	%	ASTM D412
Tear Strength	10.5	kN/m	ASTM D624
Compression Set			ASTM D395B
23°C, 22 hr	5.0	%	ASTM D395B
70°C, 22 hr	65	%	ASTM D395B

Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-70.0	°C	ASTM D746
Dynamic Service Temperature	60	°C	

Injection	Nominal Value	Unit
Drying Temperature	65.6 - 71.1	°C
Drying Time	2.0 - 3.0	hr
Rear Temperature	171 - 199	°C
Middle Temperature	177 - 210	°C
Front Temperature	191 - 221	°C
Nozzle Temperature	199 - 229	°C
Processing (Melt) Temp	199 - 221	°C
Mold Temperature	10.0 - 48.9	°C
Injection Pressure	5.17 - 8.96	MPa
Injection Rate	Fast	
Screw Speed	50 - 200	rpm
Clamp Tonnage	2.8 - 4.8	kN/cm ²
Cushion	5.08 - 12.7	mm

Injection instructions

Holding Time: 5 to 7 Sec.

Extrusion	Nominal Value	Unit
Drying Temperature	65.6 - 71.1	°C
Drying Time	2.0 - 3.0	hr
Hopper Temperature	160 - 177	°C
Cylinder Zone 1 Temp.	171 - 191	°C
Cylinder Zone 3 Temp.	179 - 199	°C
Cylinder Zone 5 Temp.	191 - 210	°C
Adapter Temperature	191 - 210	°C
Melt Temperature	191 - 199	°C
Die Temperature	191 - 210	°C

Extrusion instructions

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

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