

PermaFlex® 55

Thermoplastic Elastomer

RAUH Polymers, Inc.

Message:

PermaFlex®55 is a thermoplastic elastomer (TPE) product. It can be processed by injection molding and is available in North America.

Features include:

flame retardant/rated flame

chemical resistance

Hydrolytic stability

General Information			
Features	Good compressive strength Good chemical resistance Hydrolysis stability		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.24	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	50	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.50 - 0.60	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	61		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹			ASTM D638
Fracture, -40°C	48.3	MPa	ASTM D638
Fracture, 23°C	48.3	MPa	ASTM D638
Tensile Elongation ²			ASTM D638
Fracture, -40°C	900	%	ASTM D638
Fracture, 23°C	900	%	ASTM D638
Taber Abrasion Resistance (1000 Cycles, 1000 g, H-18 Wheel)	30.9	mg	ASTM D3389
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ³	150	kN/m	ASTM D624
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-40°C	No Break		ASTM D256
23°C	No Break		ASTM D256
Instrumented Dart Impact	36.2	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	204	°C	ASTM D1525 ⁴
Melting Temperature	218	°C	

Flammability	Nominal Value	Test Method
Flame Rating (1.60 mm)	HB	UL 94
Injection	Nominal Value	Unit
Drying Temperature	76.7 - 82.2	°C
Drying Time	2.0 - 4.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	204 - 210	°C
Middle Temperature	227 - 232	°C
Front Temperature	227 - 232	°C
Nozzle Temperature	232 - 238	°C
Processing (Melt) Temp	232 - 266	°C
Mold Temperature	54.4 - 65.6	°C
Injection Pressure	82.7 - 89.6	MPa
Injection Rate	Moderate	
Holding Pressure	68.9 - 75.8	MPa
Back Pressure	0.00 - 2.76	MPa

Injection instructions

Screw Speed: Medium

NOTE

1. Type 1
2. Type 1
3. C mold, 510mm/min
4. 速率 A (50°C/h)

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