

PermaFlex® 45

Thermoplastic Elastomer

RAUH Polymers, Inc.

Message:

PermaFlex®45 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

Good tear strength

chemical resistance

Wear-resistant

Hydrolytic stability

General Information			
Features	Good compressive strength		
	Good tear strength		
	Good wear resistance		
	Good chemical resistance		
	Hydrolysis stability		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.24	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	75	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.50 - 0.60	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	50		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
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	193	°C	ASTM D1525 ³
Melting Temperature	204	°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	177 - 182	°C
Middle Temperature	188 - 193	°C
Front Temperature	193 - 199	°C
Nozzle Temperature	202 - 210	°C
Processing (Melt) Temp	193 - 216	°C
Mold Temperature	21.1 - 32.2	°C
Injection Pressure	110 - 138	MPa
Injection Rate	Moderate	
Holding Pressure	68.9 - 89.6	MPa

Injection instructions
Back Pressure: 17%Screw Speed: Medium

NOTE
1. Type 1
2. Type 1
3. 速率 A (50°C/h)

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