



TPV - 50D-400 Datasheet

Description:

TPV – 50D-400 thermoplastic vulcanizate is a high flow fully crosslinked, EPDM/PP compound. It is designed to replace thermoset elastomers, such as EPDM or polychloroprene, and traditional thermoplastic TPVs. TPV – 50D-400 provides the performance of vulcanized rubber with the advantage of low-cost thermoplastic processing. Excellent oil and chemical resistance with a maximum service temperature of 275°F.

Applications:

Suitable for applications requiring flexibility in the following markets: automotive, appliance, business machines, construction, consumer products, electrical & electronics, fluid delivery, hardware, wire and cable, and medical devices.

PROPERTY	Typical Value	Units	Test Method
<u>PHYSICAL</u>			
<u>Hardness</u>			
Injection Molded, 5 sec	50	Shore D	ASTM D2240
Extrusion, 5 sec	47		ISO 868
Injection Molded, 5 sec	51		ASTM D792
<u>Specific Gravity</u>			
23°C	.93		ISO 1183
	.94		
<u>IRM 903 Oil, Vol. Swell</u>			
70 hr @ 125°C	37	%	ASTM D471
	45		ISO 1817
<u>Compression Set [125C, 70H]</u>			
22 hr @ 70°C	69		ASTM D395
	-		ISO 815
70 hr @ 125°C	85	%	ASTM D395
70 hr @ 125°C	62		ISO 815
Brittle Point	-30	°C	ASTM D746
<u>Ozone Resistance</u>			
500 hr, 100 pphm O ₃ conc.	Good		ASTM D1149
<u>MECHANICAL</u>			
<u>Tensile Strength</u>			
23°C, 500 mm/min	29.2	Mpa	ASTM D412
	27.0		ISO 527
<u>Tensile Modulus @ 100%</u>			
23°C, 500 mm/min	9.4	Mpa	ASTM D412
	12.0		ISO 527
<u>Ultimate Elongation</u>			
23°C, 500 mm/min	600	%	ASTM D412
	780		ISO 527
<u>Tear Strength</u>			
23°C, 500 mm/min	97.1	kN/m	ASTM D624 (Die C)
	100.0		ISO 34 (Die C)

Maximum recommended operating temperature: 275°F