

Desmopan® 445

Thermoplastic Polyurethane Elastomer (Polyester)

Covestro - PUR

Message:

injection molding grade; grease and oil-resistant; good heat resistance; low compression set; Application; Automotive engineering; Injection molded engineering parts

General Information			
Features	Grease Resistant		
	High Heat Resistance		
	Low Compression Set		
	Oil Resistant		
Uses	Automotive Applications		
	Engineering Parts		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1220	kg/m ³	ISO 1183 ¹
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868 ²
Shore A, 3 sec	93		
Shore D, 15 sec	44		
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress ³			DIN 53504
Break, 23°C	56.4	MPa	
10% Strain,23°C	5.50	MPa	
50% Strain,23°C	11.6	MPa	
100% Strain,23°C	14.3	MPa	
300% Strain,23°C	31.5	MPa	
Tensile Strain ⁴ (Break, 23°C)	490	%	DIN 53504
Abrasion Resistance (23°C)	25.0	mm ³	ISO 4649-A
Tensile Storage Modulus			ISO 6721-1,-4
-20°C	790	MPa	
20°C	103	MPa	
60°C	58.0	MPa	
Torsional Storage Modulus			ISO 6721-2
-20°C	280	MPa	
23°C	25.0	MPa	

70°C	16.0	MPa	
Impact Resilience (23°C)	35	%	ISO 4662
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ⁵ (23°C)	95	kN/m	ISO 34-1
Compression Set (70°C, 24 hr)	35	%	ISO 815
Injection	Nominal Value	Unit	
Drying Temperature	< 110	°C	
Processing (Melt) Temp	210 to 235	°C	
Mold Temperature	20.0 to 40.0	°C	
NOTE			

1.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
2.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
3.	200 mm/min
4.	200 mm/min
5.	500 mm/min

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