

Desmopan® 453 DPS 041

Thermoplastic Polyurethane Elastomer (Polyester)

Covestro - PUR

Message:

Injection molding grade; grease and oil-resistant; hydrolysis-stabilised; low compression set; good wear resistance; Application; Injection molded engineering parts; Automotive engineering; Coupling elements

General Information			
Additive	Hydrolysis Resistant		
Features	Good Wear Resistance		
	Grease Resistant		
	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	1230	kg/m ³	ISO 1183 ¹
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868 ²
Shore A, 3 sec	97		
Shore D, 15 sec	51		
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress ³			DIN 53504
Break, 23°C	37.9	MPa	
10% Strain, 23°C	8.20	MPa	
50% Strain, 23°C	15.1	MPa	
100% Strain, 23°C	18.3	MPa	
300% Strain, 23°C	30.6	MPa	
Tensile Strain ⁴ (Break, 23°C)	470	%	DIN 53504
Abrasion Resistance	32.0	mm ³	ISO 4649-A
Tensile Storage Modulus			ISO 6721-1,-4
-20°C	1.78	GPa	
20°C	0.240	GPa	
60°C	0.110	GPa	
Impact Resilience	30	%	ISO 4662
Elastomers	Nominal Value	Unit	Test Method

Tear Strength ⁵	180	kN/m	ISO 34-1
Compression Set			ISO 815
23°C, 72 hr	15	%	
70°C, 24 hr	27	%	
Injection	Nominal Value	Unit	
Drying Temperature	110	°C	
Processing (Melt) Temp	220 to 240	°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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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

