

Desmopan 445

400 grade series, ester / Shore hardness D 45 - 70

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

ISO Shortname

Property	Test Condition	Unit	Standard	typical Value		
				drying	annealed	-
Mechanical properties (23 °C/50 % r. h.)						
C shore hardness, method A		-	ISO 868			93
C shore hardness, method D		-	ISO 868			44
Ultimate tensile strength	200 mm/min	MPa	DIN 53504			56,4
Strain at break	200 mm/min	%	DIN 53504			491
Stress at 10 % strain	200 mm/min	MPa	DIN 53504			5,5
Stress at 50 % strain	200 mm/min	MPa	DIN 53504			11,6
Stress at 100 % strain	200 mm/min	MPa	DIN 53504			14,3
Stress at 300 % strain	200 mm/min	MPa	DIN 53504			31,5
C Compression set	24 h; 70 °C	%	ISO 815			35
C Abrasion resistance		mm ³	ISO 4649 method A			25
Impact resilience		%	ISO 4662			35
Tear propagation resistance	500 mm/min	kN/m	ISO 34-1			95
Thermal properties						
Torsional storage modulus	-20 °C	MPa	ISO 6721-2			280
Torsional storage modulus	23 °C	MPa	ISO 6721-2			25
Torsional storage modulus	70 °C	MPa	ISO 6721-2			16
Tensile storage modulus	-20 °C	MPa	ISO 6721-1,-4			790
Tensile storage modulus	20 °C	MPa	ISO 6721-1,-4			103
Tensile storage modulus	60 °C	MPa	ISO 6721-1,-4			58
Other properties (23 °C)						
C Density		kg/m ³	ISO 1183-1			1220
Molding conditions						
Injection molding-Melt temperature		°C	-	210 - 235		
Injection molding-Mold temperature		°C	-			20 - 40
Maximum drying temperature		°C	-			110

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

Impact properties: N = non-break, P = partial break, C = complete break

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Disclaimer

Desmopan Disclaimer for Sales products

This information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery.

Desmopan Typical value

The shown values are typical values only. Unless explicitly agreed in written form, they do not constitute a binding material specification or warranted values. Values may be affected by the design of the mold/die, the processing conditions and coloring/pigmentation of the product. Unless specified to the contrary, the property values given have been established on standardized test specimens at room temperature.

Desmopan Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing. To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensured by the provision of efficient exhaust ventilation and fresh air at the workplace in accordance with the Safety Data Sheet. In order to prevent the partial decomposition of the polymer and the generation of volatile decomposition products, the prescribed processing temperatures should not be substantially exceeded.

Desmopan No Medical-, Food Contact- and Cosmetic Applications

This product is not designated as "Medical Grade"[i] and therefore shall not be considered a candidate for the manufacture of a medical device or of intermediate products for medical devices, which are intended under normal use to be brought into direct contact with the patient's body (e.g., skin, body fluids or tissues, including indirect contact to blood)*. This product is also not designated for Food Contact[ii], including drinking water, or Cosmetic Applications. If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices, for Food Contact products or Cosmetic Applications, Bayer MaterialScience Aktiengesellschaft (BMS-PUR-CO-TPU EMEA/LA) must be contacted in advance to provide its agreement to sell such product for such purpose. Nonetheless, any determination as to whether a product is appropriate for use in a medical device or intermediate products for medical devices, for Food Contact products or Cosmetic Applications must be made solely by the purchaser of the product without relying upon any representations by Bayer MaterialScience Aktiengesellschaft (BMS-PUR-CO-TPU EMEA/LA). [i] Please see the "Guidance on Use of Bayer MaterialScience Products in a Medical Application" document. [ii] As defined in Commission Regulation VO (EU) 1935/2004.

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