

KOCETAL® K500

Polyacetal, General Purpose, Injection Molding, Medium-Viscosity

Properties	Measurement condition	Test Method	Unit	Typical value
Physical				
Density		ISO 1183	g/cm ³	1.41
Melt flow rate	190 °C, 2.16 kg	ISO 1133	g/10min	14.0
Melt volume rate	190 °C, 2.16 kg	ISO 1133	cm ³ /10min	12.5
Molding shrinkage	Parallel	ISO 294-4	%	1.8 ~ 2.0
	Normal			1.8 ~ 2.0
Water absorption	23 °C, 50% RH	ISO 62	%	0.22
Mechanical				
Tensile strength at yield	50 mm/min	ISO 527	MPa	65
Tensile strain at yield	50 mm/min	ISO 527	%	10
Nominal strain at break	50 mm/min	ISO 527	%	25
Flexural strength	2 mm/min	ISO 178	MPa	87
Flexural modulus	2 mm/min	ISO 178	MPa	2,550
Charpy impact strength (Notched)	23°C	ISO 179/1eA	kJ/m ²	6.0
	-30°C			
Rockwell hardness	M scale	ISO 2039-2	-	80
Thermal				
Melting temperature	20 °C/min	ISO 11357-1	°C	167
Heat deflection temperature	1.8 MPa	ISO 75	°C	95
Coeff. of linear thermal expansion		ISO 11359	× 10 ⁻⁵ /°C	
Flammability		UL 94	Class	HB
Electrical				
Dielectric strength		IEC 60243	kV/mm	
Volume resistivity		IEC 60093	Ω·cm	
Surface resistivity		IEC 60093	Ω	

The values of each item in this document provide general information about the product and may be different from actual ones as reference dimensions for customer's convenience of material selection. This information cannot be viewed as a Certificate of Analysis(COA) issued by the Company to customers, nor can it be used as a basis for legal disputes such as lawsuits. The value of each item cannot be compared with the measurement result of other environment, equipment and method because it is measured under the specific condition using the existing measurement equipment and external authorized agency equipment. The characteristics described above are subject to change, and you are solely responsible for the determination and use of this product. In addition, these materials do not apply when adding pigments and other additives to the product depending on the customer's purpose of use. The value of the shrinkage factor in the above data is the value measured under the specific injection condition using our standard test piece and may be changed according to other test piece (product) and condition. Therefore, it is the customer's responsibility to apply the correction by considering the required characteristics of the molded product, the mold design condition, the product shape, the injection conditions, etc. Even if there is a difference in the shrinkage rate of the product in the mold manufactured by applying this shrinkage ratio, we also assume no guarantee or liability.

Processing Guide (Injection Molding)

Drying Temperature(℃)	80 ~ 90	(Dehumidifying Dryer)		
Drying Time(hr)	3 ~ 5			
Processing Moisture Contents(%)	≤ 0.1			
Cylinder Temperature(℃)	Nozzle 180 ~ 200	Front 180 ~ 200	Middle 170 ~ 190	Rear 160 ~ 180
Mold Temperature(℃)	60 ~ 80			

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