



KOCETAL[®] K500HS

Polyacetal, High-Strength, Injection Molding, Medium-Viscosity

Properties	Measurement condition	Test Method	Unit	Typical value
Physical				
Density		ISO 1183	g/cm ³	1.41
Melt Flow Index	190 °C, 2.16 kg	ISO 1133	g/10min	15.0
Melt Volume Rate	190 °C, 2.16 kg	ISO 1133	cm ³ /10min	12.5
Shrinkage		ISO 294-4	%	1.8-2.2
Water Absorption	23 °C, 50% RH	ISO 62	%	0.22
Mechanical				
Tensile Strength at Yield (4.0mm)	50 mm/min	ISO 527	MPa	68
Elongation at Break (4.0mm)	50 mm/min	ISO 527	%	30
Strain at Yield, (4.0mm)	50 mm/min	ISO 527	%	10
Flexural Strength (4.0mm)	2 mm/min	ISO 178	MPa	90
Flexural Modulus (4.0mm)	2 mm/min	ISO 178	MPa	2,800
Charpy Impact Strength, (4.0mm)		ISO 179/1eA		
(Notched)	23 °C		kJ/m ²	8.0
	-30 °C		kJ/m ²	-
Rockwell Hardness	M scale	ISO 2039-2	-	82
Thermal				
Melting Point	20 °C/min	ISO 11357-1	°C	173
Heat Deflection Temperature	1.8 MPa	ISO 75	°C	95
Coefficient of linear expansion		ISO 11359	× 10 ⁻⁶ /K	-
Flammability (0.8mm)		UL94	Class	HB
Electrical				
Dielectric Strength		IEC 60243	kV/mm	-
Volume Resistivity		IEC 60093	Ω-cm	-
Surface Resistivity		IEC 60093	Ω	-

※ (Test specimen Thickness)

Updated: 2018-12-18

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(°C)	80 ~ 90	(Dehumidifying Dryer)		
Drying Time(hr)	3 ~ 5			
Limitation of Processing Temperature(°C)	220			
Processing Moisture Contents(%)	≤ 0.1			
Cylinder Temperature(°C)	Nozzle	Front	Middle	Rear
	180 ~ 200	180 ~ 200	170 ~ 190	160 ~ 180
Mold Temperature(°C)	60 ~ 80			

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