

KOCETAL[®] K500

Polyacetal, General Purpose, Injection Molding, Low Viscosity

Properties	Measurement condition	Test Method	Unit	Typical value
Physical				
Specific Gravity		ASTM D792	—	1.41
Melt Flow Index	190 °C, 2.16 kg	ASTM D1238	g/10min	14.0
Shrinkage		ASTM D955	%	1.7-2.3
Water Absorption	23 °C, H ₂ O, 24 hr	ASTM D570	%	0.22
Mechanical				
Tensile Strength at Yield (3.2mm)	10 mm/min	ASTM D638	MPa	63
Nominal Strain at Break(3.2mm)	10 mm/min	ASTM D638	%	40
Flexural Strength (3.2mm)	10 mm/min	ASTM D790	MPa	96
Flexural Modulus (3.2mm)	10 mm/min	ASTM D790	MPa	2,700
Izod Impact Strength (6.4mm)		ASTM D256		
(Notched)	23 °C		J/m	75
	-30 °C		J/m	—
Rockwell Hardness	M scale	ASTM D785	—	80
Thermal				
Melting Point	20 °C/min	ASTM D1525	°C	167
Heat Deflection Temperature	1.8 MPa	ASTM D648	°C	110
Coefficient of linear expansion		ASTM D696	$\times 10^{-5}$ cm/cm · °C	13
Flammability (0.8mm)		UL94	Class	HB
Electrical				
Dielectric Strength		IEC 60243	kV/mm	19
Volume Resistivity		IEC 60093	$\Omega \cdot \text{cm}$	1×10^{14}
Surface Resistivity		IEC 60093	Ω/sq	1×10^{16}

※ 1MPa = 10.197162 Kgf/cm², 1J/m = 0.10197 Kgf · cm/cm, (Test specimen Thickness)



Processing Guide (Injection Molding)

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

