

KOCETAL[®] K500HSL0

Polyacetal, High Strength, Low Emission, Injection Molding, Medium 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	66
Nominal Strain at Break(3.2mm)	10 mm/min	ASTM D638	%	35
Flexural Strength (3.2mm)	10 mm/min	ASTM D790	MPa	95
Flexural Modulus (3.2mm)	10 mm/min	ASTM D790	MPa	2,800
Izod Impact Strength (6.4mm)		ASTM D256		
(Notched)	23 °C		J/m	80
	-30 °C		J/m	–
Rockwell Hardness	M scale	ASTM D785	–	82
Thermal				
Melting Point	20 °C/min	ASTM D1525	°C	173
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 ~ 190	180 ~ 195	175 ~ 190	165 ~ 175	
Mold Temperature(℃)	60 ~ 80				

