



KOCETAL® TF304

Polyacetal + PTFE, Tribological grade, Injection Molding, Medium Viscosity

Properties	Measurement condition	Test Method	Unit	Typical value
Physical				
Specific Gravity		ASTM D792	–	1.51
Melt Flow Index	190 °C, 2.16 kg	ASTM D1238	g/10min	6.5
Shrinkage		ASTM D955	%	1.3–1.9
Water Absorption	23 °C, H ₂ O, 24 hr	ASTM D570	%	0.21
Mechanical				
Tensile Strength at Yield (3.2mm)	20 mm/min	ASTM D638	MPa	45
Nominal Strain at Break(3.2mm)	20 mm/min	ASTM D638	%	20
Flexural Strength (3.2mm)	10 mm/min	ASTM D790	MPa	80
Flexural Modulus (3.2mm)	10 mm/min	ASTM D790	MPa	2,300
Izod Impact Strength (6.4mm)		ASTM D256		
(Notched)	23 °C		J/m	40
	–30 °C		J/m	–
Rockwell Hardness	M scale	ASTM D785	–	70
Thermal				
Melting Point	20 °C/min	ASTM D1525	°C	167
Heat Deflection Temperature	1.8 MPa	ASTM D648	°C	106
Coefficient of linear expansion		ASTM D696	× 10 ^{–5} cm/cm · °C	12
Flammability (0.8mm)		UL94	Class	HB
Electrical				
Dielectric Strength		IEC 60243	kV/mm	16
Volume Resistivity		IEC 60093	Ω · cm	1 X 10 ¹⁴
Surface Resistivity		IEC 60093	Ω /sq	1 X 10 ¹⁶

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

Updated: 01/Oct/2019

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	Front	Middle	Rear
	180 ~ 200	180 ~ 200	170 ~ 190	160 ~ 180
Mold Temperature(℃)	60 ~ 80			

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