

## **Kolon Kocetal® TC704 Reinforced Grade Acetal Copolymer (Unverified Data\*\*)**

Category: Polymer, Thermoplastic, Acetal (POM)

## **Material Notes:**

Thermal properties: Kocetal has excellent heat stability; heat degradation is little under long term and high temperature application, compared to other POM. Maximum applicable temperature of products of Kocetal are short term: 140-150C and long term: 100-120C.Mechanical Properties: Kocetal is an engineering plastic that has excellent strength, stiffness and wear endurance. Also, it offers an excellent balance of several properties. For example, mechanical properties are stable in the practical temperature zone (-50C to 80C), compared to Nylon and PBT resins. Although it has slightly lower initial strength, compared to homopolymer, the long term properties of "elongation at break and impact strength" are superior. Electrical Properties: Kocetal has excellent electrical properties. Its electrical properties, volume resistivity, dielectric constant, dissipation factor and dielectric strength change little with temperature. It also has a feature of good anti-pollution properties on electrical contact. Kocetal has such a permanent anti-static grade that can be applied to the specifics. Chemical Properties: Kocetal has excellent chemical resistance to organic chemicals, oils, fats and detergents. It is also strongly resistant to inorganic chemicals except strong acids. Information provided by US distributor, API-Kolon.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Kolon-Kocetal-TC704-Reinforced-Grade-Acetal-Copolymer-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.55 g/cc	0.0560 lb/in³	ASTM D790
Water Absorption	0.20 %	0.20 %	ASTM D570
Linear Mold Shrinkage	0.016 cm/cm	0.016 in/in	ASTM D955
Melt Flow	8.0 g/10 min	8.0 g/10 min	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	83	83	ASTM D785
Tensile Strength, Ultimate	58.8 MPa	8530 psi	ASTM D638
Elongation at Break	7.0 %	7.0 %	ASTM D638
Flexural Yield Strength	98.1 MPa	14200 psi	ASTM D790
Flexural Modulus	4.90 GPa	711 ksi	ASTM D790
Izod Impact, Notched	0.392 J/cm	0.735 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	50.0 - 70.0 μm/m-°C	27.8 - 38.9 μin/in-°F	ASTM D696
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Melting Point	166 °C	331 °F	ASTM D1525



Thermal Properties amperature, Air	Metric 20 °C	English <sub>18</sub> 🖐	Comments
	140 - 150 °C	284 - 302 °F	Short Term
Deflection Temperature at 0.46 MPa (66 psi)	160 °C	320 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	140 °C	284 °F	ASTM D648
Flammability, UL94	НВ	НВ	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	ASTM D257
Surface Resistance	1.00e+16 ohm	1.00e+16 ohm	ASTM D257
Dielectric Strength	21.0 kV/mm	533 kV/in	ASTM D149

## **Contact Songhan Plastic Technology Co.,Ltd.**

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