

PRODUCT INFORMATION

Metric & SI unit

Acetal Copolymer

KEPITAL®

KOREA ENGINEERING PLASTICS CO.,LTD.

F10-02

A high viscosity grade for extrusion of round bars, sheets and tubes. It is also suitable for injection molding of thick-walled, void-free and sink mark reduced parts.

Property	Test Method	Units	Value
Physical			
Specific Gravity	ASTM D792	—	1.41
Water Absorption 23 °C, 60%RH	ASTM D570	%	0.22
Thermal			
Melt Index	ASTM D1238	g/10min	3
Melting Point 10 °C/min	ASTM D3418	°C	165
Heat Deflection Temperature 4.6kg _f /cm ² (0.5MPa)	ASTM D648	°C	158
18.6kg _f /cm ² (1.8MPa)			110
Coeff. of Linear Thermal Expansion 20 ~ 80 °C	ASTM D696	x 10 ⁻⁵ cm/cm/°C	13
Flammability t 0.8mm	UL94	—	HB
Mechanical			
Tensile Strength 23 °C	ASTM D638	kg _f /cm ² (MPa)	615 (60)
Tensile Elongation 23 °C	ASTM D638	%	65
Flexural Strength 23 °C	ASTM D790	kg _f /cm ² (MPa)	900 (88)
Flexural Modulus 23 °C	ASTM D790	x 10 ⁴ kg _f /cm ² (MPa)	2.62 (2,570)
Shear Strength t 2mm	ASTM D732	kg _f /cm ² (MPa)	560 (55)
Notched Izod Impact Strength t 3.2mm	ASTM D256	kg _f · cm/cm (J/m)	7.0 (69)
Rockwell Hardness M scale	ASTM D785	—	M78
Electrical			
Dielectric Constant 10 ⁶ Hz	ASTM D150	—	3.7
Dielectric Dissipation Factor 10 ⁶ Hz	ASTM D150	—	0.007
Surface Resistivity	ASTM D257	Ω	1 x 10 ¹⁶
Volume Resistivity	ASTM D257	Ω · cm	1 x 10 ¹⁴
Dielectric Strength	ASTM D149	kV/mm	19
Molding Shrinkage (//Direction) t 3mm, Φ 100mm		%	2.2



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Metric & US unit

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Property	Test Method	Units	Value
Physical			
Specific Gravity	ASTM D792	—	1.41
Water Absorption 23 °C (73°F), 60%RH	ASTM D570	%	0.22
Thermal			
Melt Index	ASTM D1238	g/10min	3
Melting Point 10 °C/min	ASTM D3418	°C (°F)	165 (329)
Heat Deflection Temperature 4.6kg _f /cm ² (64psi) 18.6kg _f /cm ² (264psi) ¹	ASTM D648	°C (°F)	158 (316) 110 (230)
Coeff. of Linear Thermal Expansion 20 ~ 80 °C	ASTM D696	x 10 ⁻⁵ cm/cm/°C	13
Flammability t 0.8mm(t 0.03in)	UL94	—	HB
Mechanical			
Tensile Strength 23 °C (73°F)	ASTM D638	kg _f /cm ² (psi)	615 (8,700)
Tensile Elongation 23 °C (73°F)	ASTM D638	%	65
Flexural Strength 23 °C (73°F)	ASTM D790	kg _f /cm ² (x 10 ³ psi)	900 (12.8)
Flexural Modulus 23 °C (73°F)	ASTM D790	x 10 ⁴ kg _f /cm ² (x 10 ⁴ psi)	2.62 (37.3)
Shear Strength t 2mm (t 0.08in)	ASTM D732	kg _f /cm ² (psi)	560 (8,000)
Notched Izod Impact Strength t 3.2mm (t 0.126in)	ASTM D256	kg _f · cm/cm(ft · lb/in)	7.0 (1.3)
Rockwell Hardness M scale	ASTM D785	—	M78
Electrical			
Dielectric Strength 10 ⁶ Hz	ASTM D150	—	3.7
Dielectric Dissipation Factor 10 ⁶ Hz	ASTM D150	—	0.007
Surface Resistivity	ASTM D257	Ω	1 x 10 ¹⁶
Volume Resistivity	ASTM D257	Ω · cm	1 x 10 ¹⁴
Dielectric Strength	ASTM D149	kV/mm	19
Molding Shrinkage (//Direction) t 3mm, Φ 100mm		%	2.2

