

PRODUCT INFORMATION

Metric & SI unit

Acetal Copolymer

KEPITAL[®]

KOREA ENGINEERING PLASTICS CO.,LTD.

TX-31

An easy-flowing grade for general injection molding. It is suitable for use requiring reduced wear noise, and a wear and abrasion resistance without sacrificing mechanical properties.

Property	Test Method	Units	Value
Physical			
Specific Gravity	ASTM D792	–	1.38
Water Absorption	ASTM D570	%	0.22
Thermal			
Melt Index	ASTM D1238	g/10min	27
Melting Point	ASTM D3418	°C	165
Heat Deflection Temperature	ASTM D648	°C	
			4.6kg _f /cm ² (0.5MPa)
			18.6kg _f /cm ² (1.8MPa)
Coeff. of Linear Thermal Expansion	ASTM D696	x 10 ⁻⁵ cm/cm/°C	20~80°C
Flammability	UL94	–	t 0.8mm
Mechanical			
Tensile Strength	ASTM D638	kg _f /cm ² (MPa)	23°C 550 (54)
Tensile Elongation	ASTM D638	%	23°C 50
Flexural Strength	ASTM D790	kg _f /cm ² (MPa)	23°C 810 (79)
Flexural Modulus	ASTM D790	x 10 ⁴ kg _f /cm ² (MPa)	23°C 2.49 (2,400)
Shear Strength	ASTM D732	kg _f /cm ² (MPa)	t 2mm
Notched Izod Impact Strength	ASTM D256	kg _f · cm/cm (J/m)	t 3.2mm 6.0 (59)
Rockwell Hardness	ASTM D785	–	M scale
Electrical			
Dielectric Constant	ASTM D150	–	10 ⁶ Hz
Dielectric Dissipation Factor	ASTM D150	–	10 ⁶ Hz
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	
Molding Shrinkage (//Direction)		%	t 3mm, Φ 100mm 2.0

Properties are subject to change with a new knowledge and development.

Although the information and recommendations set forth herein are presented in good faith and believed to be correct, we recommend that persons receiving information must make their own determination as to its suitability to their purposes prior to use. These are based on natural colored products only through relevant test methods and conditions. The KOREA ENGINEERING PLASTICS CO., LTD. assumes no warranty or liability of, express or implied, as to the accuracy or completeness thereof, or any other nature regarding designs, products, or information may be used without infringing the intellectual property rights of others. Further, the data furnished by KEP are not intent to replace any testing required to determine a suitability of any application and set a specification limit for design.

KOREA ENGINEERING PLASTICS CO., LTD.
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Metric & US unit

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TX-31

An easy-flowing grade for general injection molding. It is suitable for use requiring reduced wear noise, and a wear and abrasion resistance without sacrificing mechanical properties.

Property	Test Method	Units	Value
Physical			
Specific Gravity	ASTM D792	–	1.38
Water Absorption 23 °C (73°F), 60%RH	ASTM D570	%	0.22
Thermal			
Melt Index	ASTM D1238	g/10min	27
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)	
Coeff. of Linear Thermal Expansion 20 ~ 80 °C	ASTM D696	x 10 ⁻⁵ cm/cm/°C	
Flammability t 0.8mm(t 0.03in)	UL94	–	
Mechanical			
Tensile Strength 23 °C (73°F)	ASTM D638	kg _f /cm ² (psi)	550 (7,800)
Tensile Elongation 23 °C (73°F)	ASTM D638	%	50
Flexural Strength 23 °C (73°F)	ASTM D790	kg _f /cm ² (x 10 ³ psi)	810 (11.5)
Flexural Modulus 23 °C (73°F)	ASTM D790	x 10 ⁴ kg _f /cm ² (x 10 ⁴ psi)	2.49 (35.4)
Shear Strength t 2mm (t 0.08in)	ASTM D732	kg _f /cm ² (psi)	
Notched Izod Impact Strength t 3.2mm (t 0.126in)	ASTM D256	kg _f · cm/cm(ft · lb/in)	6.0 (1.1)
Rockwell Hardness M scale	ASTM D785	–	
Electrical			
Dielectric Strength 10 ⁶ Hz	ASTM D150	–	
Dielectric Dissipation Factor 10 ⁶ Hz	ASTM D150	–	
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	
Molding Shrinkage (//Direction) t 3mm, Φ 100mm		%	2.0

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