

Ketoprix™ aliphatic polyketones are novel, engineering thermoplastic resins that provide superior toughness, strength, resilience & chemical resistance. Ketoprix™ resins are available in pellet form for use in conventional injection molding. Ketoprix molds quickly, with low warpage and delivers high first-quality rates.

Esprit Ketoprix™ Aliphatic Polyketone Product Data Sheet

Low Melt Flow IM Grade EK63, EKT63 (Natural)

Engineered Resins for Injection Molding

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PRODUCT CHARACTERISTICS

Ketoprix™ EK63 and EKT63 resins are thermoplastic aliphatic polyketones containing a 1,4-diketone backbone structure. They are produced from ethylene, propylene and CO with perfectly alternating olefin and CO monomers in the backbone.

These natural resins are low MF IM resins and are well suited for IM parts and lightly filled compounds. Ketoprix™ EK63 and EKT63 have excellent flow properties and are used in E&E, CAM, Auto and Industrial End Uses. These resins can also be used in small diameter pipe & profile extrusion applications.

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MATERIAL PROPERTIES

	Standard	EK63, EKT63
Physical		
Density (g/cm ³)	ASTM D792	1.24
Mold Shrinkage (Flow Direction, %)	ASTM D955	1.8 – 2.0
Water Content (23°C, 60% RH, %w)	ASTM D570	0.45
Thermal		
Melting Temperature, (°C)	ASTM D1525	220
Melt Flow Rate 240°C, 2.16kg	ASTM D1238	6 g/10min
Deflection Temperature	ASTM D648	
HDT 0.45MPa (°C)		210
HDT 1.82MPa (°C)		105
Flammability	UL94	HB
Mechanical		
Tensile Strength, 23°C (MPa)	ASTM D638	65
Nominal Strain at Break, (%)	ASTM D638	250
Tensile Modulus, 23°C (GPa)	ASTM D638	1.6-2.2
Flexural Strength, 23°C (MPa)	ASTM D790	60
Flexural Modulus 23°C (GPa)	ASTM D790	1.6
Charpy Impact Strength, 23°C (kJ/m ²)	ASTM D256	20-50
Rockwell Hardness (R Scale)	ASTM D785	105
Electrical		
Volume Resistivity, (Ω-cm)	ASTM D257	10 ¹⁵
Dielectric Strength, (KV/mm)	ASTM D149	17

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PROCESSING

KETOPRIX™ Polyketone resins are processable in conventional Injection Molding (IM) equipment. Much more information about IM operation of KETOPRIX™ Polyketone resins is contained in our [KETOPRIX™ Injection Molding Guide](#). Since these resins can be used in small diameter extrusions, more information on extrusion of KETOPRIX™ EK63 and EKT63 can be found in the [KETOPRIX™ Extrusion Guide](#). The key to processing KETOPRIX™ Polyketones is to minimize holdup and residence time as much as possible. Additional thermal stability is available with the EKT resins that contain added thermal stabilizers and antioxidants.

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ENVIRONMENTAL, HEALTH & SAFETY

KETOPRIX™ Polyketone resins are not hazardous. For information on handling and storage of KETOPRIX™ Polyketone resins, please consult our Safety Data Sheets, available from Esprit Technologies.

For more detailed information, please contact your representative at Esprit Technologies.

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REGULATORY

KETOPRIX™ Polyketone resins comply with all regulatory statues in the USA.

For more detailed information on regulatory compliance outside the USA, please contact your representative at Esprit Technologies.

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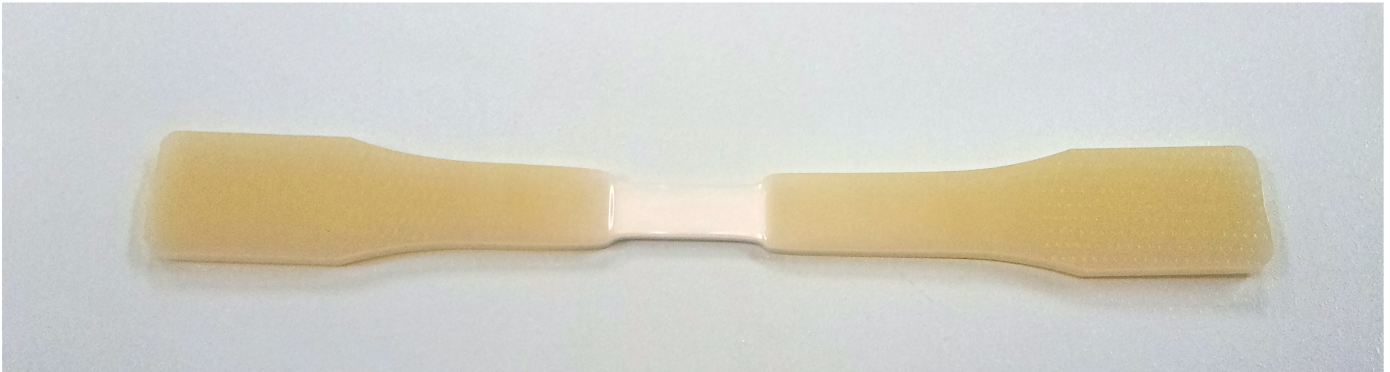
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