Ketoprix polyketone

esprix technologies
touching lives every day

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.

Esprix Ketoprix™ Aliphatic Polyketone

Product Data Sheet

High Melt Flow IM Grade

EK33, EKT33 (Natural)

Engineered Resins for Injection Molding

1 PRODUCT CHARACTERISTICS

Ketoprix™ EK33 and EKT33 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 moderate MF resins and are well suited for IM parts as well as the matrix polymer for moderately filled compounds. Ketoprix™ EK33 and EKT33 have excellent flow properties and are used in E&E, CAM, Auto and Industrial End Uses.

2 MATERIAL PROPERTIES

	Standard	EK33, EKT33
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	60 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	60
Nominal Strain at Break, (%)	ASTM D638	250
Tensile Modulus, 23°C (GPa)	ASTM D638	1.6
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	10
Rockwell Hardness (R Scale)	ASTM D785	105
Electrical		
Volume Resistivity, (Ω-cm)	ASTM D257	10^{15}
Dielectric Strength, (KV/mm)	ASTM D149	17

3 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. 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.

4 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 Esprix Technologies.

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

5 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 Esprix Technologies.

6 CONTACT US

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