Ketoprix™ aliphatic polyketones are novel, engineering thermoplastic resins that provide superior toughness, strength, resilience & chemical resistance. We offer reinforced, thermally conductive compounds using the Polyketone base resin with added thermal stabilizers and lubricants. Ketoprix™ CG compounded resins are available in pellet form for use in conventional injection molding.

Esprix Ketoprix™
Aliphatic Polyketone Compound
Product Data Sheet

Reinforced Conductive Grades
EKT23G3C3L, EKT23G3C2L

Engineered Resins for Injection Molding

1 PRODUCT CHARACTERISTICS

Ketoprix™ EKT23G3C3 and EKT23G3C2 resins are thermoplastic aliphatic polyketone compounds containing the base 1,4-diketone polymer backbone structure with added fiber reinforcement and thermally conductive additives. Additional thermal stabilizers and lubricants are also added to assist in injection molding.

These compounded resins are formulated for Injection Molded parts where high strength and stiffness are required. Ketoprix™ EKT23G3C2/3 compounds are typically used in Automotive and Industrial End Uses at elevated service temperatures to replace metal parts.

2 MATERIAL PROPERTIES

	Standard	EKT23G3C2/3
Physical		
Density (g/cm³)	ASTM D792	1.5-1.6
Mold Shrinkage (Flow Direction, %)	ASTM D955	~1.0
Thermal		
Melting Temperature, (°C)	ASTM D1525	220
Viscosity, (Pa-s, 280°C)		800-1000
Deflection Temperature	ASTM D648	
HDT 0.45MPa (°C)		-
HDT 1.82MPa (°C)		-
Mechanical		
Tensile Strength, 120°C (MPa)	ASTM D638	70-90
Nominal Strain at Break, (%)	ASTM D638	5-6
Tensile Modulus, 120°C (GPa)	ASTM D638	3-8
Flexural Strength, 120°C (MPa)	ASTM D790	90-120
Flexural Modulus 120°C (GPa)	ASTM D790	2-8

3 PROCESSING

KETOPRIX™ Polyketone fiber reinforced, thermally conductive compounds are processable in conventional Injection Molding (IM) equipment. Due to the higher flow viscosities of these highly filled compounds, each molding situation must be assessed on an individual basis. 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. Please consult your Esprix compounding representative for more information.

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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Ketoprix™ Polyketones are not intended to be used in vivo, as implantations inside the human body, or have contact with internal body fluids or tissues unless otherwise so indicated by Esprix in a separate written supply agreement and purchase contract.

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