Metton® LMR M15XX

Dicyclopentadiene

Metton America, Inc.

Message:

The Metton LMR reaction injection molding process can provide large parts in low pressure molds with the mechanical property performance similar to injection molded engineering thermoplastics. The combination of Metton LMR's process and material capabilities result in a new design freedom for replacing traditional materials such as metal, wood and fiberglass.
Fiber reinforced products tend to have poorer durability, but higher equivalent section modulus. In most semi-structural applications, Metton LMR can be designed to provide equivalent part stiffness for performance and generally at a significant weight reduction.
This section contains polymer property data necessary to initially assess the compatibility of Metton LMR with a particular application. The Metton LMR product family includes a standard M15XX product line and a flame-retardant product which meets the requirements for classification as U.L. V-O. The Metton M15XX includes the products M1534, M1537, M1539 and M1540. The Metton V-0 product uses a special three stream RIM injection machine.

General Information	
Forms	Liquid
Processing Method	Liquid Injection Molding (LIM) Reaction Injection Molding (RIM)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm³	ASTM D792
Molding Shrinkage - Flow	0.90	%	
Water Absorption (24 hr)	0.12	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	114		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1900	MPa	ASTM D638
Tensile Strength (Yield)	46.8	MPa	ASTM D638
Tensile Elongation (Yield)	4.7	%	ASTM D638
Flexural Modulus	1880	MPa	ASTM D790
Flexural Strength (5.0% Strain)	70.0	MPa	ASTM D790
Compressive Strength	58.4	MPa	ASTM D695
Shear Strength	49.5	MPa	ASTM D732
Poisson's Ratio	0.39		
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-40°C	110	J/m	
23°C	460	J/m	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)	108	°C	ASTM D648
Glass Transition Temperature	> 138	°C	DMA
CLTE - Flow (0 to 50°C)	8.8E-5	cm/cm/°C	ASTM D696

Flammability	Nominal Value	Test Method
Flame Rating	HB	UL 94

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