LUBMER™ L4640

High Molecular Weight Polyethylene

Mitsui Chemicals, Inc.

Message:

LUBMER is a specially polyethylene developed by Mitusi Chemicals' original polymerization technology. LUBMER has outstanding sliding properties, abrasion resistance and moldability. Especially, LUBMER is used for a wide range of applications for soundproofing parts of office automation equipments, automotive, electrical and electronic parts. In addition, LUBMER is making a significant contribution to the development of building materials, mechanical parts, etc.. attracting attention as a high-performance material that will build a future.
Features:
Sliding properties
Food Safety
Abrasion resistance
Chemical resistance
Electrical insulating properties
Noiseless properties
Applications:
Electrical/office automation equipment parts
Automotive parts
General equipment parts, building materials, and other parts

General Information	
Filler / Reinforcement	Filler
Features	Noise reduction Insulation Good formability Good wear resistance Good chemical resistance Compliance of Food Exposure
Uses	OA equipment Gear Electrical components Valve/valve components Roller Machine/mechanical parts Building materials Application in Automobile Field Bearing
Processing Method	Injection molding

Physical	Nominal Value	Unit	Test Method
Density	0.111	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/10.0 kg)	7.0	g/10 min	JIS K7210
Spiral Flow [1]	33.0	cm	Internal method

Molding Shrinkage			Internal method
Flow: 2.00mm	1.5	%	Internal method
Transverse flow: 2.00mm	1.3	%	Internal method
Water Absorption (24 hr)	< 0.010	%	ASTM D570
PV Limit [2]	> 0.50	MPa·m/s	Internal method
Abrasion Loss [3]	220	10^-8 mm³/N·m	Internal method
Heat Generation Temperature [4]	75	°C	Internal method
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	63		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [5] (Break, 23°C)	47.0	MPa	ASTM D638
Tensile Elongation [6] (Break, 23°C)	9.0	%	ASTM D638
Flexural Modulus [7] (23°C, 3.00mm, 48.0mm span)	2300	MPa	ASTM D790
Flexural Strength [8] (23°C, 3.00mm, 48.0mm span)	45.0	MPa	ASTM D790
Coefficient of Friction [9] (Dynamic)	0.17		Internal method
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C, 2.00 mm)	180	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (0.45 MPa, Unannealed)	91.0	°C	ASTM D648
Vicat Softening Temperature	130	°C	ASTM D1525 [10]
CLTE - Flow	1.2E-4	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+17 - 1.0E+18	ohms·cm	ASTM D257
Dielectric Strength	60	kV/mm	ASTM D149
Dielectric Constant (23°C)	2.50		ASTM D150
Dissipation Factor (1 MHz)	1.0E-4 - 2.0E-4		ASTM D150
NOTE			
1.	Melt temperature: 270°C		
2.	SUS 304 (surface roughness, 6S)		
3.	SUS 304 (surface roughness, 6S)		
4.	SUS 304 (surface roughness, 6S)		
5.	Type 4, 50mm/min		
6.	Type 4, 50mm/min		
7.	5.0 mm/min		
8.	5.0 mm/min		
9.	SUS 304 (surface roughness, 6S)		
10.	压 力1 (10N)		

Recommended distributors for this material

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