

LUBMER™ LS4140

High Molecular Weight Polyethylene

Mitsui Chemicals America, Inc.

Message:

PA Alloy

General Information			
UL YellowCard	E52579-242890		
Filler / Reinforcement	Filler		
Features	Heat resistance, high		
Uses	Gear		
	Car interior parts		
	Bearing		
Forms	Particle		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.10	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow: 2.00mm	0.80	%	ASTM D955
Transverse flow: 2.00mm	1.0	%	ASTM D955
Water Absorption (24 hr)	1.5	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	102		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹			ASTM D638
Yield, 23°C	60.0	MPa	ASTM D638
Fracture, 23°C	62.0	MPa	ASTM D638
Tensile Elongation ² (Break, 23°C)	150	%	ASTM D638
Flexural Modulus ³ (23°C, 3.00mm, 48.0mm span)	2200	MPa	ASTM D790
Flexural Strength ⁴ (yield, 23°C, 3.00mm, 48.0mm span)	82.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 2.00 mm)	88	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	175	°C	ASTM D648
Vicat Softening Temperature	200	°C	ASTM D1525 ⁵
CLTE - Flow	8.0E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms · cm	ASTM D257

Dielectric Strength	25	kV/mm	ASTM D149
Dielectric Constant	3.20		ASTM D150
Dissipation Factor (1 MHz)	0.016		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	HB		UL 94

Additional Information

Kinetic Coefficient of Friction, MCI Method, Lubmer-contact material, SUS 304, surface roughness, 6S: 0.16Critical PV value, MCI Method, Lubmer-contact material, SUS 304, surface roughness, 6S: ≥ 30 MPa m/minAbrasion Loss, MCI Method, Lubmer-contact material, SUS 304, surface roughness, 6S: $30E-10$ cm³/ kg-mVolume Resistivity, ASTM D257: $1E15$ to $1E18$ ohm-cmSpiral Flow, MCI method, 4.8mm radius: 37 cm (270°C)The values listed as Mold Shrink, Linear Flow and Trans, ASTM D955, were tested in accordance with MCI methods.Vicat Softening Point, ASTM D1525, Loading 1 (10N): $>200^{\circ}C$

NOTE

- | | |
|----|------------------|
| 1. | Type 5, 50mm/min |
| 2. | Type 5, 50mm/min |
| 3. | 5.0 mm/min |
| 4. | 5.0 mm/min |
| 5. | 压力1 (10N) |

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