

LEONA™ MR001

Asahi Kasei Corporation - Polyamide 66

General Information
General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • North America
Filler / Reinforcement	• Mineral, 40% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Stabilized • Low Warpage
Uses	• Electrical Parts • Industrial Applications • Electrical/Electronic Applications • Structural Parts
Part Marking Code (ISO 11469)	• >PA66-MD40<

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density / Specific Gravity	1.52	--		ASTM D792
Density	1.52	--	g/cm ³	ISO 1183
Molding Shrinkage - Flow	1.0 to 1.1	--	%	Internal Method
Water Absorption (Equilibrium, 73°F, 50% RH)	--	1.5	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	856000	493000	psi	ISO 527-1
Tensile Strength	14200	9720	psi	ASTM D638
Tensile Stress (Yield, 73°F)	--	8560	psi	ISO 527-2
Tensile Stress (Break, 73°F)	13500	8410	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	--	14	%	ISO 527-2
Tensile Elongation (Break)	6.0	7.0	%	ASTM D638
Tensile Strain (Break, 73°F)	5.5	19	%	ISO 527-2
Flexural Modulus	812000	479000	psi	ASTM D790
Flexural Modulus (73°F)	841000	450000	psi	ISO 178
Flexural Strength	22800	14200	psi	ASTM D790
Flexural Stress (73°F)	21800	12200	psi	ISO 178
Taber Abrasion Resistance (1000 Cycles)	--	22.0	mg	ASTM D1044
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	1.4	1.4	ft·lb/in ²	ISO 179
Charpy Unnotched Impact Strength	30	59	ft·lb/in ²	ISO 179
Notched Izod Impact	0.64	0.73	ft·lb/in	ASTM D256
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness				ASTM D785
M-Scale	85	60		
R-Scale	120	108		
Rockwell Hardness				ISO 2039-2
M-Scale	85	60		
R-Scale	120	108		
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	464	--	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	444	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	320	--	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	244	--	°F	ISO 75-2/A
CLTE - Flow	3.3E-5	--	in/in/°F	ASTM D696



Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+13	--	ohms	ASTM D257
Surface Resistivity	1.0E+13	--	ohms	IEC 60093
Volume Resistivity	1.0E+14	--	ohms·cm	ASTM D257
Volume Resistivity (73°F)	1.0E+14	--	ohms·cm	IEC 60093
Dielectric Strength	560	--	V/mil	ASTM D149
Electric Strength	560	--	V/mil	IEC 60243-1
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.030 in)	HB	--		UL 94

Processing Information

Injection	Dry Unit
Drying Temperature - Vacuum Dryer	176 to 194 °F
Drying Time - Vacuum Dryer	2.0 to 3.0 hr
Processing (Melt) Temp	527 to 563 °F
Mold Temperature	167 to 185 °F

Notes

¹ Typical properties: these are not to be construed as specifications.

