

General Information

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Creep Resistant • Fatigue Resistant	• Heat Stabilized • High Stiffness	• High Strength • Medium Heat Resistance
Uses	• Automotive Applications • Electrical/Electronic Applications	• Rods • Structural Parts	
Automotive Specifications	• GM GMW3038P-PA66-GF50H Color: Black • GM GMW3038P-PA66-GF50H Color: Natural	• GM GMW3038P-PA66-GF50J Color: Black • GM GMW3038P-PA66-GF50J Color: Natural	

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density / Specific Gravity	1.58	--	g/cm ³	ASTM D792 ISO 1183
Molding Shrinkage				Internal Method
Across Flow	0.70	--	%	
Flow	0.40	--	%	
Water Absorption				
Saturation, 23°C	--	1.3	%	
Equilibrium, 23°C, 50% RH	--	1.3	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	16900	13000	MPa	ISO 527-2
Tensile Stress				
Break, 23°C	237	183	MPa	ISO 527-2
--	235	170	MPa	ASTM D638
Tensile Elongation				
Break	2.5	4.0	%	ASTM D638
Break, 23°C	2.0	4.0	%	ISO 527-2
Flexural Modulus				
--	14500	9800	MPa	ASTM D790
23°C	13600	11000	MPa	ISO 178
Flexural Strength				
--	390	280	MPa	ASTM D790
23°C	371	269	MPa	ISO 178
Taber Abrasion Resistance				ASTM D1044
1000 Cycles	--	22.0	mg	
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	14	21	kJ/m ²	ISO 179

Disclaimer:

- Data shown are typical values obtained by proper testing methods and should not be used for specification purpose. Please use these data for selecting the most appropriate grade suitable for specific usage. These data may be changed because of improvement in properties.
- Be sure to read the relevant SDS before handling and use, and always follow the Important Precautions.
- Do not use plastics in any of the following orally or medically-related applications.
- Orally-related application : any part, device or component which may come into direct oral contact or into direct contact with drinking foods or beverages. For drinking water application, please consult Asahi Kasei Chemicals Corporation.
- Medically-related applications : any part, or component which may be used intracorporeally or which may in dialysis or other processes come into direct or indirect contact with body tissue, body fluids, or transfusion fluids.

Leona™ 14G50

Asahi Kasei Corporation - Polyamide 66

Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength	No Break	95	kJ/m ²	ISO 179
Notched Izod Impact	140	190	J/m	ASTM D256
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness				ASTM D785 ISO 2039-2
M-Scale	95	80		
R-Scale	118	--		
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	260	--	°C	ASTM D648 ISO 75-2/B
1.8 MPa, Unannealed	250	--	°C	ASTM D648
1.8 MPa, Unannealed	255	--	°C	ISO 75-2/A
CLTE - Flow	2.0E-5	--	cm/cm/°C	ASTM D696
Thermal Conductivity	0.40	--	W/m/K	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+15	--	ohms	ASTM D257 IEC 60093
Volume Resistivity				
--	1.0E+15	--	ohms·cm	ASTM D257
23°C	1.0E+15	--	ohms·cm	IEC 60093
Dielectric Strength	21	--	kV/mm	ASTM D149 IEC 60243-1
Comparative Tracking Index				IEC 60112
3.00 mm	525	--	V	
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.75 mm)	HB	--		UL 94

Notes

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

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