Leona™ 14G50

Asahi Kasei Corporation - Polyamide 66

Monday, October 23, 2017

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/cm³	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/m²	ISO 179

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Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength	No Break	95	kJ/m²	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.