

【Inquiries】

AsahiKASEI Engineering Plastics Information Comprehensive Site
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AsahiKASEI



LEONA™ 13G50

Asahi Kasei Corporation - Polyamide 66

Tuesday, March 19, 2024

General Information

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Uses	• Automotive Applications • Automotive Under the Hood • Electrical/Electronic Applications • Structural Parts
Part Marking Code (ISO11469) (ISO 11469)	• >PA66-GF50<

Other Documentation

Literature	• Moldflow Data • Molding Conditions • SDS • Technical Handbook
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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				ISO 62
Equilibrium, 23°C, 50% RH	--	1.3	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	16900	13000	MPa	ISO 527-1
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

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 applications: 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 Corporation.

- Medically-related applications: any part, device 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.

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Mechanical	Dry	Conditioned	Unit	Test Method
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
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
M-Scale	95	80		ISO 2039-2
R-Scale	118	--		
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	260	--	°C	ASTM D648
1.8 MPa, Unannealed	250	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	255	--	°C	ASTM D648
				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

Processing Information

Injection	Dry	Unit
Drying Temperature - Vacuum Dryer	80 to 90	°C
Drying Time - Vacuum Dryer	2.0 to 3.0	hr
Processing (Melt) Temp	275 to 295	°C
Mold Temperature	75 to 85	°C

Notes

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

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