

【Inquiries】

AsahiKASEI Engineering Plastics Information Comprehensive Site
URL : <https://www.asahi-kasei-plastics.com/en/contact/>

AsahiKASEI



LEONA™ FG172

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, 20% Filler by Weight	
Additive	• Flame Retardant	
Features AKEP website	• Flame Retardant	• Halogenated
Uses	• Connectors • Electrical Parts	• Electrical/Electronic Applications • Switches
Part Marking Code (ISO11469) (ISO 11469)	• >PA66-GF20 FR(17)<	

Other Documentation

Literature	• Moldflow Data • Molding Conditions • SDS • Technical Handbook
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ASTM & ISO Properties¹

Physical	Dry	Conditioned	Unit	Test Method
Density / Specific Gravity	1.52	--	g/cm ³	ASTM D792 ISO 1183
Molding Shrinkage				Internal Method
Across Flow	0.90	--	%	
Flow	0.40	--	%	
Water Absorption				ISO 62
Equilibrium, 23°C, 50% RH	--	1.1	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	9100	6600	MPa	ISO 527-1
Tensile Stress				
Break, 23°C	136	107	MPa	ISO 527-2
--	153	123	MPa	ASTM D638
Tensile Elongation				
Break	2.5	2.7	%	ASTM D638
Break, 23°C	2.5	3.0	%	ISO 527-2

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 Modulus				
--	7600	5900	MPa	ASTM D790
23°C	8000	5000	MPa	ISO 178
Flexural Strength				
--	216	177	MPa	ASTM D790
23°C	208	152	MPa	ISO 178
Taber Abrasion Resistance				ASTM D1044
1000 Cycles	--	24.0	mg	
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	7.0	11	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength	64	62	kJ/m ²	ISO 179
Notched Izod Impact	75	92	J/m	ASTM D256
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness (M-Scale)	95	55		ASTM D785 ISO 2039-2
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	255	--	°C	ASTM D648
0.45 MPa, Unannealed	256	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	248	--	°C	ASTM D648
1.8 MPa, Unannealed	240	--	°C	ISO 75-2/A
CLTE - Flow	3.0E-5	--	cm/cm/°C	ASTM D696
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	--	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	28	--	kV/mm	ASTM D149 IEC 60243-1
Comparative Tracking Index				IEC 60112
3.00 mm	250	--	V	
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.75 mm)	V-0	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
3.0 mm	960	--	°C	
Oxygen Index	37	--	%	ASTM D2863

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	270 to 280 °C
Mold Temperature	75 to 85 °C

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Notes

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



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