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AsahiKASEI Engineering Plastics Information Comprehensive Site
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AsahiKASEI

LEONA™ FG171

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, 25% 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-GF25 FR(17)<	
Other Documentation		
Literature	• Molding Conditions • SDS • Technical Handbook	

ASTM & ISO Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density / Specific Gravity	1.54	--	g/cm³	ASTM D792 ISO 1183
Molding Shrinkage				Internal Method
Across Flow	0.90	--	%	
Flow	0.40	--	%	
Water Absorption				ISO 62
Equilibrium, 23°C, 50% RH	--	0.80	%	

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
Tensile Modulus (23°C)	10200	8200	MPa	ISO 527-1
Tensile Stress				
Break, 23°C	154	121	MPa	ISO 527-2
--	162	127	MPa	ASTM D638
Tensile Elongation				
Break	2.5	3.5	%	ASTM D638
Break, 23°C	2.5	3.0	%	ISO 527-2
Flexural Modulus				
--	8900	7200	MPa	ASTM D790
23°C	9700	7900	MPa	ISO 178
Flexural Strength				
--	256	190	MPa	ASTM D790
23°C	244	180	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength	11	12	kJ/m²	ISO 179
Charpy Unnotched Impact Strength	67	67	kJ/m²	ISO 179
Notched Izod Impact	92	110	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	250	--	°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	275	--	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	

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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

Notes

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