

LEONA™ FG172

Asahi Kasei Corporation - Polyamide 66

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	- Flame Retardant - Halogenated
Uses	- Connectors - Electrical Parts - Electrical/Electronic Applications - Switches
Part Marking Code (ISO 11469)	>PA66-GF20 FR(17)<

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density / Specific Gravity	1.52	--		ASTM D792
Density	1.52	--	g/cm ³	ISO 1183
Molding Shrinkage				Internal Method
Across Flow	0.90	--	%	
Flow	0.40	--	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	--	1.1	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.32E+6	957000	psi	ISO 527-1
Tensile Strength	22200	17800	psi	ASTM D638
Tensile Stress (Break, 73°F)	19700	15500	psi	ISO 527-2
Tensile Elongation (Break)	2.5	2.7	%	ASTM D638
Tensile Strain (Break, 73°F)	2.5	3.0	%	ISO 527-2
Flexural Modulus	1.10E+6	856000	psi	ASTM D790
Flexural Modulus (73°F)	1.16E+6	725000	psi	ISO 178
Flexural Strength	31300	25700	psi	ASTM D790
Flexural Stress (73°F)	30200	22000	psi	ISO 178
Taber Abrasion Resistance (1000 Cycles)	--	24.0	mg	ASTM D1044
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	3.3	5.2	ft·lb/in ²	ISO 179
Charpy Unnotched Impact Strength	30	30	ft·lb/in ²	ISO 179
Notched Izod Impact	1.4	1.7	ft·lb/in	ASTM D256
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness (M-Scale)	95	55		ASTM D785
Rockwell Hardness (M-Scale)	95	55		ISO 2039-2
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	491	--	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	493	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	478	--	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	464	--	°F	ISO 75-2/A
CLTE - Flow	1.7E-5	--	in/in/°F	ASTM D696
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	--	ohms	ASTM D257
Surface Resistivity	1.0E+14	--	ohms	IEC 60093
Volume Resistivity	1.0E+15	--	ohms·cm	ASTM D257



Volume Resistivity (73°F)	1.0E+15	--	ohms·cm	IEC 60093
Dielectric Strength	710	--	V/mil	ASTM D149
Electric Strength	710	--	V/mil	IEC 60243-1
Comparative Tracking Index (0.118 in)	250	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.030 in)	V-0	--		UL 94
Glow Wire Flammability Index (0.12 in)	1760	--	°F	IEC 60695-2-12
Oxygen Index	37	--	%	ASTM D2863

Processing Information				
Injection	Dry Unit			
Drying Temperature - Vacuum Dryer	176 to 194 °F			
Drying Time - Vacuum Dryer	2.0 to 3.0 hr			
Processing (Melt) Temp	518 to 536 °F			
Mold Temperature	167 to 185 °F			

Notes

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

