Leona™ 1300G

Asahi Kasei Corporation - Polyamide 66

Friday, June 4, 2021

General Information

General		
Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific	• Europe • North America
Filler / Reinforcement	• Glass Fiber	
Features	• Creep Resistant • Fatigue Resistant	• High Stiffness • High Strength
Uses	• Automotive Applications • Automotive Under the Hood	• Electrical/Electronic Applications • Structural Parts
Automotive Specifications	• GM GMP.PA66.065	

ASTM & ISO Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density / Specific Gravity	1.39	--	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	--	1.7	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	10000	8000	MPa	ISO 527-2
Tensile Stress				
Break, 23°C	190	135	MPa	ISO 527-2
--	186	132	MPa	ASTM D638
Tensile Elongation				
Break	3.0	5.0	%	ASTM D638
Break, 23°C	3.0	5.0	%	ISO 527-2
Flexural Modulus				
--	9300	6300	MPa	ASTM D790
23°C	9000	6800	MPa	ISO 178
Flexural Strength				
--	289	216	MPa	ASTM D790
23°C	275	202	MPa	ISO 178
Taber Abrasion Resistance				ASTM D1044
1000 Cycles	--	15.0	mg	
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength	11	16	kJ/m²	ISO 179
Charpy Unnotched Impact Strength	72	83	kJ/m²	ISO 179
Notched Izod Impact	130	150	J/m	ASTM D256

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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Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness				ASTM D785 ISO 2039-2
M-Scale	96	75		
R-Scale	120	112		
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				
0.45 MPa, Unannealed	260	--	°C	ASTM D648
0.45 MPa, Unannealed	265	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	250	--	°C	ASTM D648 ISO 75-2/A
CLTE - Flow	3.0E-5	--	cm/cm/°C	ASTM D696
Specific Heat	1590	--	J/kg/°C	
Thermal Conductivity	0.30	--	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	28	--	kV/mm	ASTM D149 IEC 60243-1
Comparative Tracking Index				IEC 60112
3.00 mm	600	--	V	
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating (0.75 mm)	HB	--		UL 94
Oxygen Index	23	--	%	ASTM D2863

Notes

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

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