

LEONA™ 1300S

Asahi Kasei Corporation - Polyamide 66

General Information
General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • North America
Uses	• Automotive Applications • Consumer Applications • Connectors • Fittings
Part Marking Code (ISO 11469)	• >PA66<

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density / Specific Gravity	1.14	--		ASTM D792
Density	1.14	--	g/cm ³	ISO 1183
Molding Shrinkage - Flow	1.3 to 2.0	--	%	Internal Method
Water Absorption (Equilibrium, 73°F, 50% RH)	--	2.5	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	435000	174000	psi	ISO 527-1
Tensile Strength	11500	8270	psi	ASTM D638
Tensile Stress (Yield, 73°F)	11900	7540	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	4.0	24	%	ISO 527-2
Tensile Elongation (Break)	50	250	%	ASTM D638
Tensile Strain (Break, 73°F)	--	> 100	%	ISO 527-2
Flexural Modulus	406000	174000	psi	ASTM D790
Flexural Modulus (73°F)	392000	160000	psi	ISO 178
Flexural Strength	17100	7830	psi	ASTM D790
Flexural Stress (73°F)	16400	6090	psi	ISO 178
Taber Abrasion Resistance (1000 Cycles)	--	7.00	mg	ASTM D1044
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	2.9	7.1	ft·lb/in ²	ISO 179
Charpy Unnotched Impact Strength	No Break	No Break		ISO 179
Notched Izod Impact	0.73	2.8	ft·lb/in	ASTM D256
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness				ASTM D785
M-Scale	80	55		
R-Scale	120	108		
Rockwell Hardness				ISO 2039-2
M-Scale	80	55		
R-Scale	120	108		
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	446	--	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	374	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	158	--	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	158	--	°F	ISO 75-2/A
CLTE - Flow	4.4E-5	--	in/in/°F	ASTM D696
Specific Heat	0.399	--	Btu/lb/°F	
Thermal Conductivity	1.4	--	Btu·in/hr/ft ² /°F	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+13	--	ohms	ASTM D257



Surface Resistivity	1.0E+13	--	ohms	IEC 60093
Volume Resistivity	1.0E+14	--	ohms·cm	ASTM D257
Volume Resistivity (73°F)	1.0E+14	--	ohms·cm	IEC 60093
Dielectric Strength	510	--	V/mil	ASTM D149
Electric Strength	510	--	V/mil	IEC 60243-1
Comparative Tracking Index (0.118 in)	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.030 in)	V-2	--		UL 94
Glow Wire Flammability Index (0.12 in)	1760	--	°F	IEC 60695-2-12
Oxygen Index	26	--	%	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 554 °F
Mold Temperature				167 to 185 °F

Notes

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

