

**Typical Physical Properties of GKN Aerospace
Transparency Systems Cast Acrylic MIL-PRF-8184 Sheet-ACRIVUE 350**

Acrivue™ 350 Cast Acrylic Sheet is a tough, water white, plastic material. It is noted for its outdoor stability, clarity, chemical resistance and ease of forming and machining.

PHYSICAL PROPERTIES	UNITS	VALUE	TEST METHOD
Specific gravity	–	1.19	ASTM D-792-00
Tensile strength (max.)	psi	11,000	ASTM D-638-00
Tensile modulus	psi	450,000	ASTM D-638-00
Flexural strength (max.)	psi	16,000	ASTM D-790-00
Comprehensive strength (max.)	psi	19,000	ASTM D-695-96
Shear strength (max.)	psi	9,500	ASTM D-732-99
Impact strength			
Izod, notched	ft.lbs./in.	0.4	ASTM D-256-00
Charpy, unnotched	ft.lbs.	3.5	ASTM D-256-00
Hardness - Rockwell	M Scale	93	ASTM D-785-98
Hardness - Barcol	–	52	ASTM D-2583-95
THERMAL PROPERTIES	UNITS	VALUE	TEST METHOD
Maximum Service Temperature	°F	180-200	– –
Coefficient of thermal expansion	in./in./°F	4 x 10 ⁻⁵	ASTM D-696-98
Coefficient of thermal conductivity	BTU/hr./sq.ft./°F/in.	1.3	Cenco-Fitch
Specific heat	BTU/lb/°F	0.35	ASTM C-351-99
ELECTRICAL PROPERTIES	UNITS	VALUE	TEST METHOD
Dielectric strength	Volts/Mil	500	ASTM D-149-97
Surface Resistivity	Ohm/Square	2 x 10 ¹⁸	ASTM D-257-99
OPTICAL PROPERTIES	UNITS	VALUE	TEST METHOD
Refractive Index	–	1.49	ASTM D-542-00
Light Transmission	%	92	ASTM D-1003-00
Haze	%	1	ASTM D-1003-00

CHEMICAL RESISTANCE**Test method per ASTM D-543-95**

<u>Chemical</u>	<u>WT. Gain, %</u>	<u>Visual Effect</u>	<u>Dimensional Change, %</u>
5% Acetic Acid	0.5	10% Hydrochloric Acid	0.4
Acetone	Attacked	3% Hydrogen Peroxide	0.5
10% Ammonium Hydroxide	0.4	99% Isopropyl Alcohol	-0.2
Carbon Tetrachloride	--	Lacquer Thinner	0.3
10% Citric Acid	0.4	99% Methyl Alcohol	17.6
Dibutyl Sebacate	0.0	10% Nitric Acid	0.4
Distilled Water	0.5	Oleic Acid	0.0
85% Ethyl Acetate	Attacked	5% Phenol	Attacked
95% Ethyl Alcohol	1.1	10% Sodium Chloride	0.4
Ethylene Dichloride	Attacked	10% Sodium Hydroxide	0.4
Heptane (Gasoline)	0.0	30% Sulphuric Acid	0.3
Hexane	--	Toluene	0.0

% Wt. gain after 7 days @ 77° F (1% or less is negligible)

ACCELERATED AGEING

ASTM D-2565-00 (Xenon Arc)
ASTM D-4329 (QUV)

No significant change in light transmittance, haze, color, surface appearance or flatness observed after 2000 hr. exposure.

STANDARD SHEET SIZES

72 x 72 in., 12 x 12 in., and * 56 x 56 in.

In the following thicknesses :

0.220 in.	0.900 in.	1.625 in.
0.312	0.960	1.750
0.325	0.992	1.875
0.375	1.000	2.000
0.417	1.080	2.125
0.500	1.125	2.250
0.550	1.185	2.375
0.625	1.200	2.500
0.644	1.247	2.625
0.750	1.250	2.830
0.790	1.295	3.000
0.800	1.375	3.250
0.825	1.500	3.500

* 56 x 56 only available in 0.220 in. thickness.

Please contact us for further information or other available sizes.

Any data furnished are based on information believed to be reliable. They are offered in good faith but without guarantee. The prospective user should determine the suitability of the materials before adopting them. **NO WARRANTY IS MADE THAT ANY MATERIAL IS FIT FOR ANY PARTICULAR PURPOSE**



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