



PRODUCT DATA SHEET

Fusion Acrylic

This product is available from ATI Decorative Laminates in the following thickness sizes (inches):

Nominal Thickness Gauge	Minimum Allowance Gauge	Maximum Allowance Gauge
1/4" (6.3 mm)	0.196"	0.306"
3/8" (9.5 mm)*	0.304"	0.434"
1/2" (12.7 mm)	0.412"	0.562"
3/4" (19.0 mm)	0.618"	0.798"
1.0" (25.4 mm)	0.850"	1.090"

*Add +/- 1/32" (+/-0.8 mm) to the above tolerance for hint textured sheets.

The product is manufactured by printing an image using latex ink. The printed side is then protected by either a vinyl opaque backer, or a clear coated backer.

Recommended Care and Maintenance for Fusion Acrylic Products:

- Soap and water for cleaning (no abrasive chemicals)

The technical details for the Acrylic are stated below:

		ASTM	Typical Value
Property	Method		(0.250" Thickness)
Mechanical	Specific Gravity	D 975	1.19
	Tensile Strength	D 638	10,000 psi (69 MPa)
	Elongation, Rupture		4.5%
	Modulus of Elasticity		400,000 psi (.2800 MPa)
	Flexural Strength	D 790	17,000 psi 117 MPa
	Modulus of Elasticity		480,000 psi (3300 MPa),
	<u>Compressive Strength (Yield)</u>	D 695	17,000 psi 117 MPa
	Impact Strength		0.4 ft. lbs/in. of notch
	Izod Milled Notch	D 256	(21.6 J/m of notch)
	Rockwell Hardness	D 785	M-93
Barcol Hardness	D 258	5a3 48	
Optical	Refractive Index	D 542	
	Light Transmission, Total		80, 1003



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1.49 92%

Thermal

Forming Temperature

rox. 300 °F (149°C)

Deflection Temperature

under load, 264 si

D648

195°F 01 ° c

Vicat Soften in Point

D 1525

220°F 11 05
" C

Maximum Recommended Continuous

Service Temperature

160°F c 71°C)

0.125" thickness

o, s9s

Coefficient of

Thermal Conductivity

Cenco-Fitch

Flammability, Burning Rate

0.000040 in/in - ° F

0.119 w/m•K

(0.000072 m/m • 0 C)

1.0 in/min. 25 mm/min. ,

1.3 BTU/(Hr) (Sq. Ft.) ("Fl in.)

0 1 1929

850°F 4:55°C

Specific Heat @ n

°F

0.35 BTU/(lb.) (°F)

(1470J Kg•K)

Smoke Density Rating D 2843 **4.8%**

Electrical Dielectric Strength Short
Time (0.125) 430 volts/mil (17 KV/mm),



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60 Hertz	D 150	3.6
1000 Hertz		3.3
1000000 Hertz		2.8
Dissipation Factor		
60 Hertz	D 150	0.06
1000 Hertz		0.04
1000000 Hertz		0.02

Volume Resistivity

D 257

10⁸ohm m-cm

Surface Resistivity

D 257

10¹⁵ohms

Water Absorption

24 hrs@ 73°F D 570 0.2%

Odor None

Taste None

(a) Typical values; should not be used for specification purposes,

(b) Values shown are for 0.250" thickness. Some values will change for continuous service, or 190°F for short intervals with thickness or pigmentation.

(c) it is recommended that temperatures not exceed 160°



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When acrylic and print is protected by a vinyl opaque backer, these are the technical details:

Property	Typical Values	Test Method
Thickness, inches(μm) Face plus adhesive Face, adhesive & liner	0.0055 (144) 0.0120 (305)	
Quick Tack lb. /in ² (N/25mm) Stainless Steel	3.5 (15.3)	MACtac CTM-25
Peel Adhesion lb./in. (N/25 mm) Stainless Steel - 30 min. - 24 hrs. - 24 hrs. Heat Aged 158°F - 72 hrs. Aluminum - 72 hrs. Powder coated Paint - 72 hrs.	4.4 (19) 6.0 (26) 7.2 (32) 7.0 (31) 8.8 (39) 4.5 (20)	PSTC-1
Dimensional Stability, inches (mm) 48 hours @ 158°F MD CD	0.06 (1.5) 0.04 (1.02)	MACtac CTM-21 (Method D) Bonded to aluminum
Tensile, lb. /in.(N/15 mm) MD CD Elongation, % MD CD	8.0 (21) 6.0 (16) 150 80	ASTM D-882
Temperature Range Application: End Use:	50°F min. (10°C) -40° to 200°F (-40° to 93°C)	
Surface Burning Characteristics Meets ANSI, NFPA, & IFC Flame Spread Smoke Density	Class A 15 50	ASTM E84-01 or ANSI/NFPA 255 or IFC 8-1
Opacity	96 – 99	X-Rite Densitometer



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When acrylic and print is protected by clear coated backer, these are the technical details:

Attributes	
Print odor	Odorless
Special ventilation required	None
Cleaning fluids: health hazards labels	Cautionary statement only: Contact with skin and eyes may result in irritation. No "R" phrases.
Ink health hazards labels – general handling	Cautionary statement only: Contact with skin and eyes may result in irritation. No "R" phrases.
Flammability/ combustibility	FP > 93.3C
HAPs free (inks and maintenance fluids)	None according to EPA Method 311
VOCs: inks, pre-and post-treatments	231 g/L – 294 g/L
VOCs: Maintenance fluids	241 g/L