



Art-Mat acoustical foams are designed to provide maximum absorption of airborne sound with minimum thickness and weight. These flexible polyurethane open cell foam products are manufactured to optimize pore size, air flow resistance, and density.

Sound energy, passing through the cell structure, is converted into minute quantities of low grade heat that is easily dissipated. Since the uniformity of the cells are carefully controlled the efficiency is constant and predictable from one installation to another.

Many applications require these products to be subjected to environments such as dirt, moisture, chemicals, and abrasion that could be hostile to an unprotected foam. ArtUSA Industries has developed various surface treatments to protect the integrity of the foam from these elements. These facings will increase the absorption properties at certain frequencies as well as provide a cleanable, decorative and durable finish for a wide variety of applications.

Art-Mat Foams can be purchased in rolls or sheets, and can be die cut, or fabricated to customer specifications. They are easily cut with a knife, saw or scissors. The addition of pressure sensitive adhesive provides a convenient method of fastening to most substrates. All Art-Mat products can be made in combination with Art-Composite barrier systems when both absorption and transmission loss is needed (see Art-Composite brochure), or VETM damping systems, when enhanced vibration control is required.

## Physical Properties:

Color:	Charcoal Grey
Density:	2 lb./cft. or 4 lb./cft 10% 32 kg./m or 64 kg./m 10% per ASTM D3574-86 test A
Tear Strength:	1.5 ppi per ASTM D3574-86 test F
Tensile Strength:	20 psi per ASTM D3574-86 test E
Elongation:	120% per ASTM D3574-86 test E
Compression Set%:	50% Deflection Max: 10% per ASTM D357-86 test D
Flammability:	MVSS 302, UL-94 HF1 and FAR 25.853(b)
Service Temperature:	-40 F to +225°F continuous to 275°F intermittent
Thermal Conductivity:	.30 - .38 BTU in./hr. ft, OF/in .25 per ASTM C177
Heat Resistance:	retention of tensile strength after 22 hours dry heat aging at 140°C min 70% ASTM D3574-86 test k
Humidity Resistance:	retention of tensile strength after 6 hours, steam autoclave at 105°C min 70% ASTM D3574-86 test j
Chemical Resistance:	good for common fluids, water, petroleum, solvents, and alkalis. Swelling will occur and will return to almost 100% after drying.

## Acoustical Properties:

Lb/sq ft	Sound Transmission Loss, dB, (ASTM E90-75)						STC
	125	250	500	1000	2000	4000	
.5	.00	.08	.16	.55	.98	.95	.45
.75	.01	.11	.38	.92	.93	.86	.60
1	.06	.19	.74	1.00	.85	.97	.70
1.5	.10	.30	.77	1.04	.99	1.11	.80

**Standard Size:** 54" x 50' roll

### Pressure Sensitive Adhesive:

Supported SBR temps to 140°F

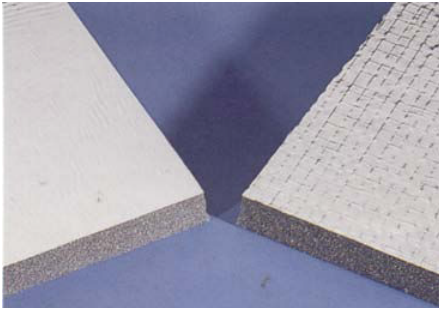
Supported or Unsupported Acrylic temps to 250°F



### Art Mat Urethane faced Foams

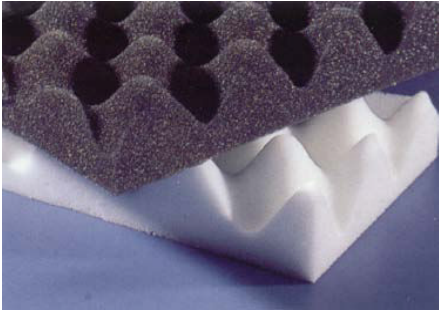
provide a colorful, durable, abrasion and puncture resistant product. These urethane films are heat laminated to form a decorative textured surface and can be made impervious to most petroleum, moisture, and dirt. Matte facing can be added to our embossed foam to give a more pronounced decorative rosette pattern. (Type Deco-Foam CF)

Thickness inch	Absorption Coefficient per ASTM C423-90a						
	125	250	500	1000	2000	4000	STC
.5	.04	.11	.19	.57	.95	.87	.45
.75	.06	.15	.43	.98	.88	.87	.60
1	.01	.24	.47	.87	.90	.99	.60
1.5	.18	.68	.89	.69	.68	.77	.75



**Art Mat Aluminized Polyester Facings** are used in environments hostile to unprotected foam. These polyester films, plain or reinforced, offer abrasion resistance and are unaffected by moisture, lubricants, fuels, dirt and a variety of solvents. The film is easily wiped clean and seams may be taped for a finished appearance.

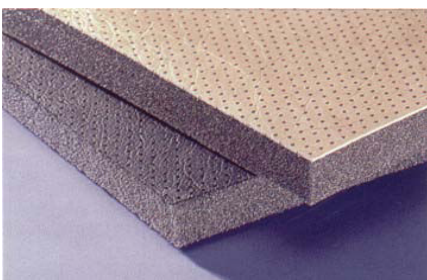
Absorption Coefficient per ASTM C423-90a	Frequency (Hz)						
	125	250	500	1000	2000	4000	STC
<b>Thickness</b>							
<b>.5</b>	.08	.15	.53	.53	.15	.28	.35
<b>.75</b>	.08	.33	.87	.38	.29	.32	.45
<b>1</b>	.11	.56	.61	.31	.34	.46	.45
<b>1.5</b>	.20	.74	.49	.37	.31	.49	.50



**Art Mat Convoluted Foams** combine excellent absorptive performance, over a wide range of frequencies, with the aesthetics of a sculpted design. These unique egg crate pattern panels can be directly adhered to reflective surfaces or can be used as hanging baffles when it is impractical to cover large manufacturing areas or warehouses. Melamine foam should be used for applications that require high temperatures, lightweight or enhanced flammability properties (see Acousti-Mat Safe & Sound).

**Colors:** Polyurethane -Charcoal; Melamine -White

Absorption Coefficient per ASTM C423-90a	Frequency (Hz)						
	125	250	500	1000	2000	4000	STC
<b>Thickness inch</b>							
<b>.5</b>	.02	.10	.24	.64	1.00	1.00	.50
<b>.75</b>	.08	.26	.83	1.00	1.03	1.04	.80
<b>1</b>	.12	.69	1.10	1.03	1.03	1.15	.95
<b>1.5</b>	.00	.28	.76	.91	1.02	1.10	.75



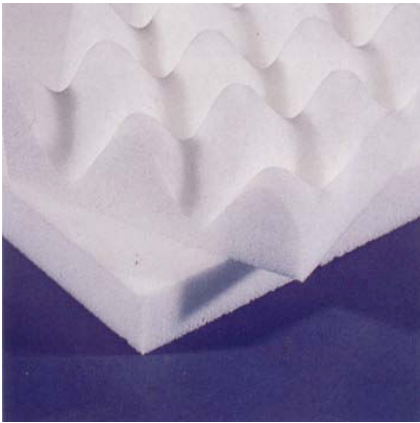
**Art Mat Vinyl Faced Foams** combine the absorption properties of Acousti-Mat foam with the tough durability of vinyl. The perforation pattern has been engineered to provide maximum absorption and resilience with 14% open area. The attractive leather like appearance makes it ideal for vehicle interiors, marine headliners, and enclosures.

Absorption Coefficient per ASTM C423-90a	Frequency (Hz)						
	125	250	500	1000	2000	4000	STC
<b>Thickness inch</b>							
<b>.5</b>	.22	.24	.52	.88	1.00	.68	.66
<b>1</b>	.30	.37	.90	.96	.80	.76	.76



**Art Mat Densified Embossed** foams are manufactured by compression under high heat to form an attractive textured pattern. This increases the surface area, density and stiffness of the foam for maximum sound absorption. By densifying the surface a thin skin is formed to give greater abrasion and air velocity resistance. A decorative urethane facing can be applied (Type Deco-Foam CF) for enhanced appearance and durability, and to make the foam impervious to most liquids. *Acousti-Mat Embossed Foams are typically used in business equipment, appliances, HVAC units and vehicle headliners.*

Thickness inch	Absorption Coefficient per ASTM C423-90a				Frequency (Hz)		
	125	250	500	1000	2000	4000	STC
.5	.00	.09	.24	.75	.97	.75	.50
.75	.07	.13	.29	.82	.86	.89	.55
1	.07	.18	.53	.98	.88	1.01	.65
1.5	.08	.31	.71	.94	.97	1.05	.75



**Art Mat Melamine** is a light weight, high temperature resistant, open cell foam manufactured from melamine resin. It combines excellent thermal properties with superior sound absorption capabilities to create a versatile fiber free product which can be applied in situations which may prohibit the use of urethane foams or fiberglass insulations. This fire retardant foam meets the flame spread, smoke density and fuel contribution requirements necessary to comply with Class-1 building code regulations. The high performance thermal and acoustical characteristics of this flexible, low density foam make it an ideal product for in-plant and FDA approved applications. In addition to being the solution to aircraft and architectural noise problems,

Thickness inch	Absorption Coefficient per ASTM C423-90a				Frequency (Hz)		
	125	250	500	1000	2000	4000	STC
.5	.09	.13	.27	.50	.68	.81	.40
.75	.09	.15	.39	.65	.80	.90	.50
1	.06	.31	.65	.82	.94	.99	.68
1.5	.19	.35	.75	.98	1.01	1.03	.75

### Melamine Physical Properties:

Color:	White
Tear Strength:	.5 ppi per ASTM D3574-86 test F
Tensile Strength:	18 psi per ASTM D3574-86 test E
Elongation:	15% per ASTM D3574-86 test E
Flammability:	UL 94VO, UL-94 HF-1, UL 94-5, and FAR 25.853 (a) ASTM E84 Flame: 2.5; Smoke: 16.9, ASTM E162 Pass, 662 Pass
Thermal Conductivity:	BTU/hr., Ft , F/in.; .25 per ASTM C 177
Temperature:	-45 F --- 302 O F Continuous; to 400 F Intermittent
Density:	.7 lb./ft.3 ASTM D3574-86 test A