



Technology and Ingenuity for Green Buildings



**Green
Product Award**
Winner 2018

ARCHITECTURAL BROCHURE

INSUL-PAC®

EASY TO INSTALL • HIGH PERFORMANCE • INTERIOR FINISHES

ACOUSTIC ULTRA LINE™

WALL INSULATION • ACOUSTIC PANEL • HANGING BAFFLES

High Efficiency - Sound Absorption (NRC Rating)
Easy Installation, Durable and Attractive Finishes
Natural Base - Environment Friendly Product
High Efficiency - Thermal Insulation
Energy Savings Material
STC and OITC Values

NEW



Above Ceiling (Attic) Application - Thermal Insulation and Noise damping.

Product Information

Made of strong reinforced natural fiber, high performance, aesthetic finishes, and ease of installation are always our goals when developing new products. This Ultra Line acoustical product is a testimonial to that. After going through rigorous tests with stringent standards and gaining reputation with an excellent track record in North America and Asia, our product is now a highly demanded building product. This product, when combined with applications of Cell-Spray under metal roofs and ceilings, helps saving the building's energy consumption while preserving a safe and pleasant building's environment. All items can be supplied with pure aluminum foil or poly liner at any thickness and dimension customizable to your needs. Our products are recommended by the American Institute of Architects-Sustainable Design, US Green Building Council, and many US builders. Featured in the Green Buildings Campaign through broadcasts by ABC, CBS, Fox, House and Garden TV, and the Discovery Channel.

This is a truly innovative, do-it-yourself, environmentally friendly product with great performance, durability, and attractive finish. Used by OEM Industries for various applications i.e. HVAC, home theaters, engine heat covers, seals, pump housing, refrigeration compartments, etc. Test results, approvals, and partial project references are presented in this publication.

Type W-Insulation

Type W comes in basic marble blue and is 2" or 3.5" thick (24" width x 94" length). Special orders up to 5.5" thick and custom dimensions are also available. This no-itch insulation is easy to handle and install and compliant with US-EPA standards. Passed ASTM C739 test. Wall panel fitting accessories and lining are available. (See picture and illustrations on page 12 and wall liner on page 14)

Fibers are treated with US-EPA registered fungal inhibitors that offer excellent protection against mold, mildew, fungi, and pests. It is fire resistant, non-corrosive, emits no odor, contains no formaldehyde, and does not irritate skin or itch. Resistant to microbial growth with excellent thermal value that saves building energy consumption. This product is pre-scored at the plant for easy tear-off to meet site dimensions. No tools required for size adjustments at pre-scored dimensions; R value = 3.85 @ 1" thick.

Acoustical Performance NRC Type W (Wall Insulation)

*As Tested in Accordance with ASTM C423
using Type A Mounting per ASTM E795

Thickness (Inch)	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
2"	0.35	0.94	1.32	1.22	1.06	1.03	1.15
3.5"	0.95	1.30	1.19	1.08	1.02	1.00	1.15

Sound Transmission Class **STC 55** for 50 mm Thick
Type W Based on Wall System
With 2 X 15 mm Gypsum Board and 50 mm Air Gap

*As Tested in Accordance with ASTM E90-04



Type W Suitable for Walls, Roofs and Ceilings.



Wall Treatment Application.

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Acoustical Panel Type A

This truly **do-it-yourself** acoustical panel is made of 100% reinforced pure natural fiber, produces high acoustical performance, and is durable with aesthetic finish. There is no additional wrapping or lining necessary. Available in standard 2' x 4' in basic marble blue, special custom matching and sizes are available.

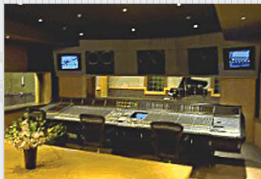
It saves labor time and costs greatly with simple applications which results in faster project completion. No shelf life, tested in compliance with various stringent ASTM standards and performance charts below illustrate some essential uses of this product on your next project, whether it is an improvement or newly developed projects. Homes and commercial projects need this product.



Hanging Baffles Indoor Sports Arena.



Gymnasium and Multipurpose Room - Hanging Baffles.



Acoustic Wall Panel - TV Studio.

Sound Absorption on Hanging Baffles - Type A - Panel

*As tested in accordance with ASTM C423-99a - Results shown at NRC Frequencies

Thickness (Inch)	Baffles	Method of Installation	Sabins/Baffle Average
1"	3	1 Layer - 3 specimens suspended on one cable, 16" between baffles.	10.30
1"	3	1 Layer - 3 specimens suspended between 2 cables, 36" between baffles.	23.25
1"	3	1 Layer - 3 specimens suspended between 2 cables, 36" between baffles. (Baffles suspended at an angle - between cables to maintain uniform height)	9.55
1"	6	Two 1" Layers - 3 specimens suspended on 2 cables, 16" between specimens. 41" from floor to specimens and 45" between cables.	9.85
1"	6	Two 1" Layers - 3 specimens suspended on 2 cables, 16" between specimens. 41" from floor to specimens, 45" between cables. (Type U - Panel)	13.85
1"	9	1 Layers - 3 specimens each suspended on 2 cables, 24" apart and 3 specimens perpendicular across the 2 cables in between the longitudinal baffles.	9.25
1"	12	1 Layer - 6 specimens suspended on 2 cables with 9" spacing. 6 specimens between the cables. Cables spaced 45" apart.	8.40

Color Chart



NOTE: For product's Approvals and Ratings, Technical Specifications and Standards Compliance - Please refer to Page - 16 and 17.



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Sports Arena becomes Concert Hall. This Arena hosted multi events from Basketball Games to Academy Awards and Grand Musical Shows.

Acoustical Performance NRC Type A - Acoustical Panel

*As tested in accordance with ASTM C423
using Type A mounting per ASTM E795

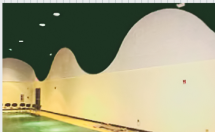
Thickness (Inch)	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1"	0.08	0.31	0.79	1.01	1.00	0.99	0.80
2"	0.35	0.94	1.32	1.22	1.06	1.03	1.15



Motor Vehicle Industry.



Creative Production Studio.



Acoustic and Decorative Wall and Ceiling - Multipurpose Hall.



Fellowship Music Stage.



AHU and Mechanical Room - Ford, Singapore.



Motor Vehicle Improvement.

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Acoustical Panel Type U-Ultra Line

This top-of-the-line product has higher durability and performance and is more rigid and durable. There is no additional lining or finishes necessary. It is ready to be installed as a finished product. It greatly speeds up the project's schedule while providing more flexible design to architects and interior designers. In addition to general standard ASTM requirements, this product has been tested in accordance with ASTM C423, E90, and E413 as well as ASTM E1332.

Acoustical Performance - NRC Type U - Acoustical Panel

*As tested in accordance with ASTM C423 - using Type A mounting per ASTM E795

Thickness (Inch)	Backing	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1"	No Air Space	0.07	0.30	0.86	1.10	1.05	1.03	0.85
50 MM	No Air Space	0.17	0.74	1.18	0.91	0.87	0.90	0.93
50 MM	50 MM Air Space	0.38	1.02	0.96	0.90	0.93	0.94	0.95

Sound Transmission Class - **STC 17** - 7/8" (min) thick - Type U
Out-door in-door Transmission Class - **OITC 14** - 7/8" (min) thick - Type U

**As tested in accordance with ASTM E90, ASTM E413 and E1332



OEM Industries.



Fellowship Hall Acoustics - Ceiling Clouds.

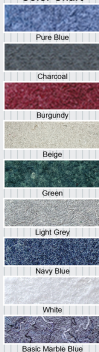


Indoor Swimming Pools.



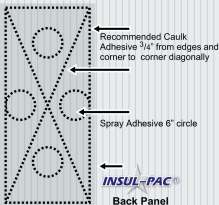
Office Wall Panel.

Color Chart



Typical Wall Panel Installation

*Adhesive may be replaced with 3" wide Velcro - as required.



NOTE:

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