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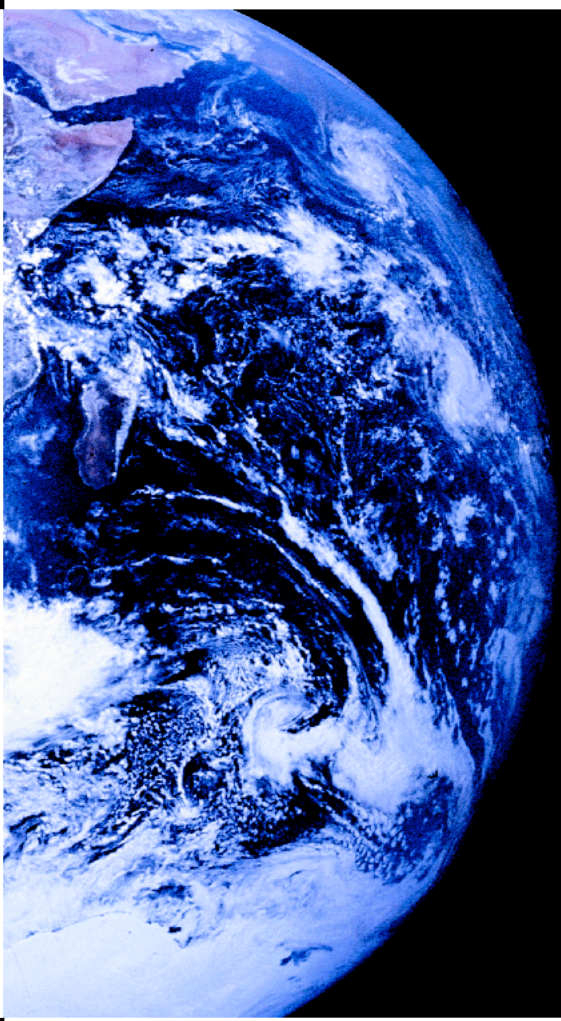
MONOGLASS®

SPRAY-ON INSULATION

INSULATING YOUR WORLD



FOR 25 YEARS

commercial

residential

sports facilities

industrial

marine

THERMAL INSULATION - ACOUSTIC CONTROL

Providing architects, engineers and builders around the world with safe, versatile, competitive and effective spray-on insulation for 25 years.

See our NEW Premium Spray Applied Acoustic Treatment

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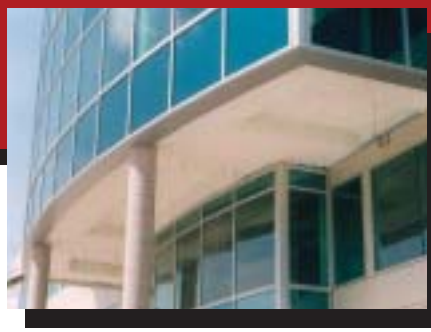
Monoglass® Spray-On is an engineered product specifically designed as a thermal, acoustic material for a wide variety of applications within the construction industry.

The product is suitable for use in multi-tenancy residences, airports, theatres, auditoriums, churches, schools, metal buildings, swimming pools and office buildings.

Monoglass® Spray-On is applied by trained applicators using approved equipment, ensuring quality control and continuity nationwide.

The product is a white, non-combustible, inorganic, elongated glass fiber, blended with binders for spraying in a monolithic one-pass application to the desired thickness on any surface configuration. It bonds easily to concrete, steel, wood, gypsum, rigid fiberglass and plastic insulations.

National, one low price material marketing qualifies **Monoglass®** as the economical, quality Spray-On wherever high thermal value, light reflectance, sound attenuation and acoustic control are required.



Soffits and irregular substrates easily insulated with Monoglass

Since it's development in 1979, Monoglass® Spray-On has become the leading spray-applied glass fiber insulation world wide, providing superior thermal/acoustic performance than previously available.

SAFE

Monoglass® Spray-On, made from 37% re-cycled glass, is non-toxic, odorless, and bright white for higher light reflectance. Monoglass® is a non-combustible product, eliminating the concerns and disadvantages of combustible cellular plastic or cellulose insulations.

Thermal parking garage application; St. Luke's Hospital, Houston, Texas

VERSATILE

Monoglass® Spray-On allows for flexibility and freedom of design, providing options previously unavailable to the architect. Monoglass® bonds easily to concrete, wood, steel, gypsum, rigid fiberglass and plastic insulations. The pneumatic application creates a monolithic, carpet-like texture which can be adapted to meet various surface finish requirements.

COMPETITIVE

Monoglass® Spray-On is installed to a lower density than competitive products, thereby reducing installed weight. As a result, high thermal values (R-20/R.S.I. 3.5 on horizontal surfaces, R-28/R.S.I. 4.9 on vertical surfaces) can be achieved without expensive mechanical support or multi-layer applications. Construction time and costs are reduced with economical, clean and fast installation.

Acoustic Spray-On Application

Non-combustible Monoglass applied over fireproofing; University of California

EFFECTIVE

Monoglass® Spray-On combines inorganic glass fibre with non-resoluble binders for a one-pass spray application to any surface configuration. The monolithic application becomes part of the building structure, producing a more effective system which resists heat passage, air leakage and moisture migration. Proven performance, longevity and exceptional bond strength makes Monoglass® the choice of architects, builders and building owners.

Thermal Properties

Monoglass® Spray-on has the highest R-Value per inch available in a spray applied fiber product. At R-4.0/R.S.I. 0.7 per inch, installations of R-20/R.S.I. 3.5(overhead) are achieved with only 5 inches of product, with no mechanical support required. Wall applications can be applied to R-28/R.S.I. 4.9 quickly and easily without meshing.

Fire Hazard Classification

Monoglass® is non-combustible and inorganic, and will not provide any assistance to the build-up of fire. Monoglass® Spray-On meets Code requirements for non-combustibility and use in multi-story, multi-tenancy, high population density structures. Monoglass® is approved for use over spray applied fireproofing materials and will not affect fire ratings.

Acoustical Performance

Monoglass® Spray-On provides high Noise Reduction Coefficients to control airborne noise within our living and working environments. Monoglass' high Sound Transmission Coefficient values control sound levels between spaces in multi-tenancy buildings, hotels, offices, condominiums and townhouses.

Condensation Control

Monoglass® combined with proper ventilation, provides a solution to many condensation problems. The monolithic application eliminates dead air spaces which can lead to condensation formation, and covers internal projections in conjunction with exterior claddings to minimize cold and heat transmission.

test&data
specs now online
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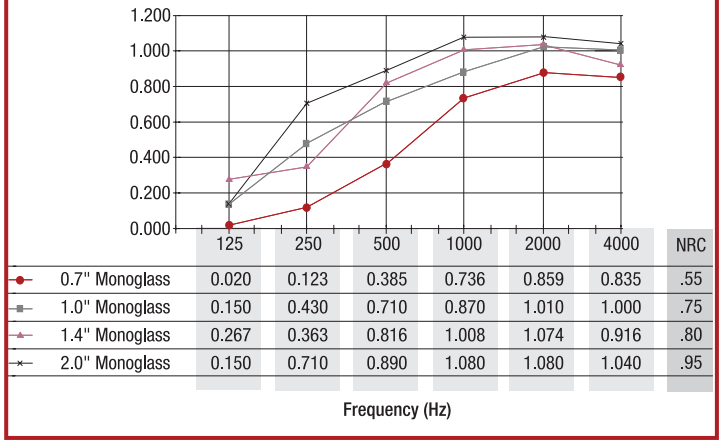

	125	250	500	1000	2000	4000	NRC
0.7" Monoglass	0.020	0.123	0.385	0.736	0.859	0.835	.55
1.0" Monoglass	0.150	0.430	0.710	0.870	1.010	1.000	.75
1.4" Monoglass	0.267	0.363	0.816	1.008	1.074	0.916	.80
2.0" Monoglass	0.150	0.710	0.890	1.080	1.080	1.040	.95

Acoustic ceiling application, School for the Deaf, London, U.K.

Soffit application to insulate occupied space above

Test Standard	Test	Requirement	Result
Thermal Resistance	ASTM C-518-76	Report Value	RSI = 28.12 m*K/W R = 4.00 F*ft^2*hr/BTU in
Thermal Conductance	ASTM C-518-76	Report Value	KSI = 0.036 W/(m*k) K = 0.25 BTU*in/(ft*hr*F)
Non-Combustibility	ASTM E-136-82 CAN 4-S114-78	Non-Combustible	Non-Combustible
Surface Burning Characteristics	ASTM E-84 CAN/ULC S102-M88	Flame Spread < 25 Smoke Developed < 50	Flame Spread = 0 Smoke Developed = 0
Smolder Resistance	ULC-C723(S)	Mass Loss < 5.0%	Mass Loss 0.37%
Air Erosion	ASTM E-859	Report Value	No Weight Loss
Wind Tunnel Test*	ASTM D-3161	No Delamination	No Erosion (100 km/h, 60 mph)
Adhesion/Cohesion	ASTM E-736-86	> 1.7 KPA	Passed
Fungal Bacteria Resistance	ASTM G-21	No Growth of Fungi	No Growth
Noise Reduction Coefficient	ASTM C-423-77/ISO 354	Report Value	17mm, 0.7" = 0.55 25mm/1" = 0.75 35mm, 1.4" = 0.80 50mm/2" = 0.95

** Test applies to a modified, non-standard application of Monoglass.Contact Monoglass Inc. for complete information.*

Monoglass Color Spray

Light Yellow | Sky Blue | Gray | Charcoal | Standard White

Monoglass Bonding Adhesives are now pre-tinted in four shades, allowing tinted finishes to be achieved without spray painting or dyeing. Tinted finishes are an excellent choice for any application that requires controlled lighting and acoustics.

Perfect for use in Film Studios, Theaters, Night Clubs, Gymnasiums and Restaurants.Monoglass Spray-On gives an attractive finish and excellent thermal and acoustic insulation performance all in one product. Monoglass also provides the added safety of a non-combustible, combined with higher thermal resistance (R-4.0 per inch) than combustible cellulose insulations.

(Top & Bottom) Gray Monoglass application; Ohio State University Stadium

(Above) Charcoal Monoglass application; Paramount Pictures Film Studio

Standard Specification Guide

PART 1 - GENERAL

1.1 RELATED WORKS AND SECTIONS
a) Section 07210 - Building Insulation
b) Section 09820 - Acoustical Insulation

1.2 WORK INCLUDED
Provide all labor, materials and equipment necessary to provide a complete installed application of sprayed thermal/acoustic insulation applied to areas indicated on the drawings and described herein.

1.3 QUALIFICATIONS OF APPLICATORS
All firms of applicators performing the work of this section must be approved by the manufacturers of the sprayed thermal/acoustic material.

1.4 SAMPLES
If requested, provide samples, minimum 4" x 4" of sprayed insulation bonded to a piece of rigid board.

1.5 MANUFACTURER'S LITERATURE
Copies of the manufacturer's literature, clearly indicating conditions of acceptance and methods of applications shall be available on site before, and during, period of application of work of this section.
Manufacturer shall provide project references for work completed, still performing and in place, for a minimum of 10 years.

1.6 DELIVERY
Materials to be delivered to the site in original, labeled and unopened packages.

1.7 STORAGE
Materials to be stored on site in a warm, dry place and either on a concrete floor or a wood platform. Monoglass® Bonding Adhesive must be kept from freezing at all times.

1.8 ENVIRONMENTAL CONDITIONS
a) Work on this section shall only be performed under the conditions stated in the manufacturer's printed application instructions.
b) Sufficient heat and ventilation must be provided at all times during installation and drying of spray insulation according to manufacturer's printed instructions.

1.9 PATCHING
All patching and repairing of sprayed thermal insulation due to cutting by other trades shall be performed under this section and paid for by the trade performing the cutting.

1.10 PROTECTION
a) Provide adequate protection to adjacent surfaces from being sprayed by means of drop cloths, polyethylene sheets, with necessary taping.
b) Close off and seal any duct work in areas where sprayed insulation is being applied.

1.11 MANUFACTURER'S REPRESENTATIVE
Allow the manufacturer's representative full access to the site.

PART 2 - PRODUCTS

2.1 MATERIALS
a) Spray-applied materials shall be Monoglass® Spray-On White Fiber conforming to CAN 4-S114-78 & ASTM E-136 using Monoglass® Liquid Bonding Adhesive manufactured by Monoglass® Incorporated.
b) Thermal/acoustic insulation shall not contain asbestos, free crystalline silica or combustible fibers, and shall exhibit the following properties:

PROPERTY	TEST METHOD RESULTS
Fire Hazard Classification	ASTM E84-79:
	Flame Spread - 0
	Smoke Developed - 0
Bond Strength	ASTM E-736:
	4.062kPA
Non-Combustibility	ASTM E-136
Smolder Resistance	CGSB 51-GP-36P
Dry Density	ASTM D-1622-83:
	3.0 pounds/cubic foot
Thermal Conductivity	ASTM C-518:
	K-Factor .25
	R-Value 4.00/inch
Noise Reduction Coefficient	ISO 354:
	25mm/1" NRC = .75
	50mm/2" NRC = .95
Fire Gas Toxicity University of Pittsburgh Protocol	Passed
Fungus & Bacterial Resistance	ASTM G-21-90
	No Growth
Air Erosion	ASTM E-859 at 20ft/sec;
	No weight loss or damage

c) MONOGLASS® Bonding Adhesive shall be mixed with fresh, clean potable water to the exact proportions recommended by the manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION
Examine all surfaces and conditions to which the work of this section is to be applied. Ensure they are adequate to provide a satisfactory application of the specified materials. Report any deficiencies to the design authority.

3.2 PREPARATION
a) Remove any dust, dirt, foreign material, loose paint, etc. on surfaces to which the work is to be applied, which could otherwise create a false bond or staining of insulation. Clean and seal as required.
b) Verify bond requirements and compatibility of all surfaces to receive thermal insulation materials.
c) Ensure that all ducts, piping, equipment, or other items which would interfere with application of thermal insulation are not positioned until thermal insulation work is completed.

3.3 APPLICATION
a) Mix and apply thermal insulation in strict accordance with manufacturer's recommendations.
b) Apply insulation to the substrate as specified in the site drawings.
c) Apply insulation to substrate in sufficient thickness to achieve the required thermal (acoustical) value. Board tamp and over-spray with adhesive if required by design authority.

3.4 CLEAN-UP
a) Remove sprayed thermal insulation from material and surfaces not specifically required to be insulated.
b) Broom clean work areas affected by the work of this section.

3.5 OPTIONS
a) If required by design authority, board tamp sprayed insulation surface and apply Monoglass® adhesive to seal the tamped insulation surface, in accordance with manufacturer's written instructions.
b) Paint as required, or apply spray insulation using manufacturer's pre-tinted adhesives, as per manufacturers instructions.

3.6 RETURN AIR PLENUMS
For return air plenum applications, finish as in Options 3.5(a).

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