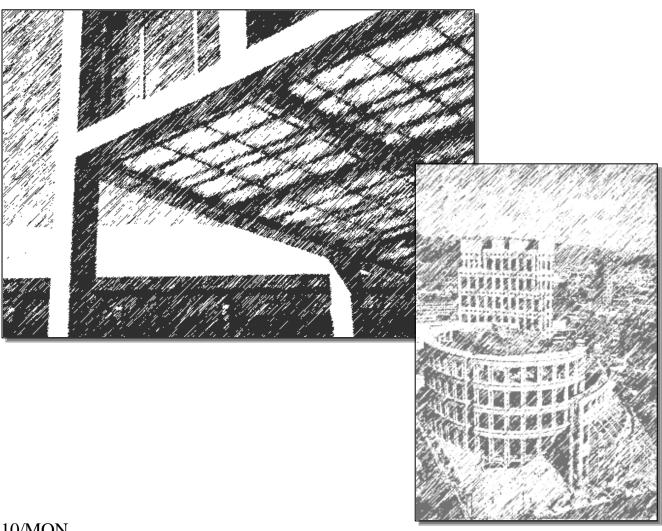


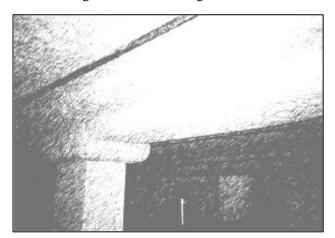
Spray Applied Glass Fiber Insulation

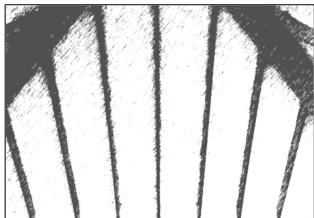


07210/MON Sweets BuyLine 2295 MONOGLASS Spray-On is an engineered product specifically designed as a thermal, acoustic material for a wide variety of applications within the construction industry. Monoglass is suitable for use in multi-tenancy residences, airports, theaters, auditoriums, churches, schools, metal buildings, swimming pools and office buildings.

MONOGLASS 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 insulation.

MONOGLASS is applied by trained applicators using approved equipment, ensuring quality control and continuity. 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.





Since its development in 1979, **Monoglass** Spray-On has become the leading spray-applied glass fiber insulation worldwide, providing superior thermal / acoustic performance than previously available.

SAFE

Monoglass Spray-On, made from 25% recycled 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.

VERSATILE

Monoglass Spray-On allows for flexibility and freedom of design, providing options previously unavailable to the architect. Monoglass bonds easily to concrete, steel, wood, 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 installations.

EFFECTIVE

Monoglass Spray-On combines inorganic glass fiber with non-toxic polymer adhesive 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 noncombustible 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, multitenancy, high population density structures.

Acoustic Performance

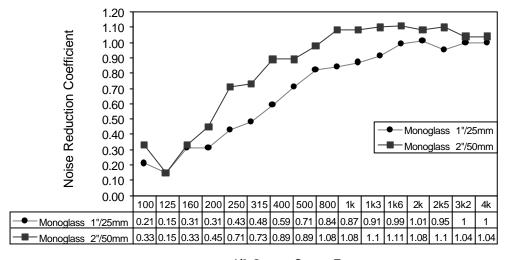
Monoglass Spray-On produces Noise Reduction Coefficients greater than any other spray-on material to control airborne noise in our living and working environments. Monoglass' high Sound Transmission Coefficient values control sound levels between spaces in multi-tenancy buildings, hotels, offices, condominiums and townhouses.

Condensation Control

Monoglass Spray-On, combined with proper ventilation, provides the ideal solution to most condensation control problems. The monolithic application eliminates dead air spaces, which can lead to condensation formation, and covers internal projections in conjunction with exterior cladding to minimize cold and heat transmission.

PROPERTY	TEST METHOD	REQUIREMENT	TEST RESULT	
Thermal Resistance	ASTM C-518-76	Report Value	RSI = $28.12 \text{ m}^*\text{KW} \text{ R} = 4.00$ F*ft2*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 4-2114-87	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 of Fungi	
Noise Reduction Coefficient	ASTM C-423-77 ISO 354	Report Value	17mm/0.7"=0.55 25mm/1"=0.75 35mm/1.4"=0.85 50mm/2"=0.95	

Monoglass Spray-On Insulation Sound Absorption Coefficients ISO 354



1/3-Octave Centre Frequency

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Standard Specification Guide Section 07215 Sprayed Thermal Insulation

PART 1 – GENERAL

- 1.1 RELATED WORKS AND SECTIONS
- a) Section 03300
- b) Section 07200 Building Insulation
- 1.2 WORK INCLUDED: Provide all labor, material and equipment necessary to provide a complete installed application of sprayed thermal insulation 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 material and shall also have been in business for a minimum period of three (3) years.
- 1.4 SAMPLES: If requested, provide samples, minimum 12" x 12" of sprayed insulation bonded to a piece of rigid board.
- 1.5 MANUFACTURERS LITERATURE: Copies of the manufacturer's literature, clearly indicating conditions of acceptance and methods of application shall be available on the site before, and during, period of application of Work of this Section.
- 1.6 DELIVERY: Materials to be delivered to the site in original, labeled and unopened packages.
- 1.7 STORAGE: Materials to be stored on the site in a warm, dry place and either on a concrete floor or a wood platform. MONOGLASS Adhesive must be kept from freezing.
- 1.8 ENVIRONMENTAL CONDITIONS

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- a) Work on this Section shall only be performed under the conditions stated in the manufacturer's printed application instructions.
- b) Arrange for natural ventilation to properly dry the insulation material during and subsequent to its application. Adequate dry heat and ventilation must be supplied at low temperatures.
- c) MONOGLASS cannot be applied when ambient and substrate temperatures are below 1°C/34°F during the application and until the product is completely dry to the substrate.
- 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 ductwork in areas where thermal insulation is being applied.
- 1.11 MANUFACTURER'S REPRESENTATIVE: Allow the manufacturer's representative full access to the site.

PART 2 – PRODUCTS

2.0 MATERIALS

a) MONOGLASS Spray-On shall not contain asbestos, free crystalline silica or combustible fibers, and shall exhibit the following properties:

<u>PROPERTY</u>	TEST METHOD RESULTS
Fire Hazard Classification	ASTM E-84-79 Flame Spread = 0, Smoke Developed = 0
Non-Combustibility	ASTM E-136
Smolder Resistance	CGSB 51-GP-36P
Dry Density	ASTM D-1622-83 2.8 pounds/cubic ft.
Thermal Conductivity	ASTM C-518 K-Factor 0.25, R-Value 4.0/inch
Noise Reduction Coefficient	ASTM C-423-77 NRC .85 (1.4 inches on solid backing)
Fire Gas Toxicity	University of Pittsburgh Protocol
Fungus & Bacterial Resistance	ASTM G-21-90
Air Erosion	ASTM E-859

- b) Spray-applied materials shall be MONOGLASS Spray-On White Fiber conforming to CAN 4-S114-78 using MONOGLASS Liquid Bonding Adhesive manufactured by Monoglass Incorporated.
- c) MONOGLASS Bonding Adhesive shall be mixed with fresh, clean water to the exact proportions recommended by the manufacturer.
- d) MONOGLASS Adhesive must be kept from freezing.

PART 3 - EXECUTION

- 3.0 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 Architect.
- 3.1 PREPARATION
- a) Clean off any dust, loose dirt, foreign material, etc. on surfaces to which the Work is to be applied, which could otherwise create a false bond or cause staining of the product.
- b) Verify bond requirements and compatibility of all surfaces to receive thermal insulation materials.
- c) Ensure that all ducts, piping, equipment or other items that would interfere with application of thermal insulation are not positioned until thermal insulation work is completed.
- 3.2 APPLICATIONS
- a) Mix and apply thermal insulation in strict accordance with manufacturer's recommendations.
- b) Apply insulation in sufficient thickness to achieve the required thermal value.
- c) Spray apply insulation to the underside of the substrate as specified in the site drawing. Apply insulation to substrate in sufficient thickness to achieve the required thermal (acoustic) value.
- 3.3 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.
- 3.4 OPTIONS: The Monoglass surface can be left untamped for conventional finishes or tamped and over-sprayed for flatter finish, or painted. For a more durable finish in exposed applications, it is recommended that the Monoglass surface be board tamped and sealed with Monoglass adhesive.

STANDARDS COMPLIANCE

National Building Code, Canada (CCMC 10025-R)

Coast Guard (Board of Steamship Inspection)

New York City Building Standards (MEA 333-88M)

State of California (CA-T318(CN))

British Standards (BS-476 = Part 4)

International Marine Organization (IMO A-472)

South Africa Bureau of Standards & International Standards Organization:

Thermal (SABS 722/82316/KK41: ISO 8301:91)

Acoustic (SABS 717/85190/K30: ISO 354:85)

Non-Combustibility (SABS 0177 Part 3 & 5: ISO 1182:90)

The performance data herein reflects Monoglass[®] Incorporated's expectations based on tests conducted by recognized testing facilities in accordance with recognized standard methods. No agent, employee or representative of Monoglass[®] Incorporated or its subsidiary or affiliated companies is authorized to modify the performance data. Monoglass[®] is a registered trademark of Monoglass[®] Incorporated.

AVAILABILITY

Monoglass Spray-On product, complete test results, Material Safety Data Sheets, and literature are available through a network of trained applicators, agents and distributors worldwide. Contact Monoglass Incorporated for further information.

Monoglass[®] Incorporated

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For more information, please contact:					