

GENERAL PRODUCT INFORMATION
Sprayed Mineral Fibre Insulation Products
Revised MAR/07

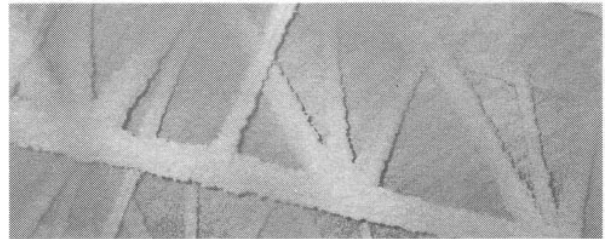


HiBAR™—*Spray-Applied Fire Resistant Material*

DESCRIPTION

HiBAR™ is a semi-cementitious spray-applied blend of high-temperature mineral fibres and proprietary binders used to provide added thermal resistance, acoustical control and fire endurance to various building assemblies. The composite contains no asbestos or free crystalline silica. *HiBAR™* is spray-applied through a pneumatic hose and nozzle-wetted with water through an airless pump system. *HiBAR™* is applied quickly and economically without the messy clean up problems encountered with heavier wet-mix materials.

HiBAR™ is supplied in 18.1 kg (40 lb) white plastic bags (black print).



APPLICATIONS

HiBAR™ application is typically for improving the fire endurance rating of metal building substrates but can be made to most appropriately prepared surfaces.

- *HiBAR™* is used as *spray-applied fireproofing* over rigid structural substrates such as open-web steel joists, beams, columns, floor/ceiling assemblies and exterior or partition wall units.
- *HiBAR™* is used as *thermal insulation* for pre-fabricated metal buildings, corrugated metal roof assemblies, underside of concrete slabs and masonry or metal wall assemblies.
- *HiBAR™* is used as *spray-applied acoustical treatment* for ceilings and upper walls in noisy production areas or in large rooms such as gymnasiums or swimming pools where both sound absorption and aesthetic enhancement is desired.
- *HiBAR™* is used as *spray-treatment for condensation control* on exposed structural components that are in contact with cold surfaces.



APPEARANCE

HiBAR™ applications cure to an off-white colour with an attractively textured surface. As a spray-finish, *HiBAR™* naturally follows the contours of existing substrates, fills and obscures minor voids and may be surface-tamped as an optional treatment at the time of application.

LIMITATIONS

HiBAR™ is not suitable for exterior surfaces that might be exposed to moisture infiltration, or to interior areas subjected to high humidity unless adequate ventilation is provided.

Maximum thickness on rigid overhead areas without mechanical support is 75mm. Thickness of over 38mm generally requires treatment with primary adhesive.

Wood substrates and painted surfaces, especially high-gloss finishes, require treatment with primary adhesive.

Surfaces covered with dirt, loose scale, oil, peeling paint or other substances that would impair bonding must be cleaned or sand-blasted and confirmed for acceptable bonding properties prior to application of *HiBAR™*. Consult with a *HiBAR™* representative.

Non-rigid overhead substrates are not suitable for *HiBAR™* application unless deflections are limited to less than 1/120 of the span and a primary adhesive is used, and unless the area is free of overhead traffic or other impact forces until the *HiBAR™* has cured.

TECHNICAL EVALUATION

The following data reflect established HiBAR™ performance criteria – consult with your HiBAR™ representative for updated test information.

Flame Spread Classification – as per CAN/ULC-S102 / ASTM E84	Flame Spread:	0
	Fuel Contributed:	0
	Smoke Developed:	0
Fire Endurance – CAN/ULC-S101 / ASTM E119	Column	ULC Design No. Z804 (1-, 2- and 3-hour)
	Wall	ULC Design No. W803 (1-hour and 2-hour)
	Floor / Ceiling	ULC Design No. F820 (1-hour and 2-hour)
	Roof	ULC Design No. R807 (1-hour)
Combustibility – CAN4-S114	Non-combustible	
Thermal Barrier for Foamed Plastic – CAN/ULC-S124 ...	10-minute endurance rating @	22mm thickness
	15-minute endurance rating @	32mm thickness
Thermal Resistance – ASTM C518	RSI 0.026/ mm thickness	R- 3.76 per inch thickness
Air Erosion – ASTM E859	Less than 0.144 mg / m ²	
Bond Strength – ASTM E736	Adhesion / Cohesion	exceeds 20 X dry material weight
Sound Absorption – ASTM C423	38mm HiBAR™ sprayed on solid backing	NRC = 0.91
Light Reflectivity – (350-700nm visible)	Approximately 80%	

INSTALLATION

Preparation

All surfaces to receive HiBAR™ must be free from oil, dirt, loose paint or other foreign substances that may inhibit bonding. Cleaning, when required, is the responsibility of the building owner.

Ensure mechanical and electrical hanger points and fittings are installed prior to application of HiBAR™. Ensure adjoining areas not intended for HiBAR™ application are masked with polyethylene during application. Ensure electrical power, clean water, adequate lighting and temporary enclosures (as required) are provided.

Apply primary adhesive as required. Use HiBOND asphalt-base primer or SureBOND water-emulsion type adhesive. Follow specifications on fire-rated assemblies.

CAUTION: Ensure substrate temperatures are maintained at no less than +4°C during application and for a minimum 24-hours after application is completed. When exterior ambient temperatures are below +4°C, heating and temporary shrouding may be necessary.

Application

Apply HiBAR™ using manufacturer's licensed applicator and recommended equipment. On fire-rated assemblies, HiBAR™ must be applied strictly in accordance with ULC design requirements or such other stipulation made by authorities having jurisdiction and in accordance with manufacturer's instructions. Strict compliance with specified thicknesses and densities is essential.

Pre-wet area to be sprayed and place HiBAR™, using contour spray method, to locations and thicknesses as specified. Overspray completed work with water. Patch and repair as required to correct for damage caused by other trades.

Owner must engage and pay for inspection service to verify that both the fireproofing material and application meet specifications. Deficiencies must be reported to the application contractor while work is in progress or within 48-hours of completion of the application.

NOTE: Use electrically powered equipment to avoid safety restrictions associated with fuel storage and exhaust fumes. Application of HiBAR™ can cause airborne dust – use a NIOSH-approved N95 particle mask (e.g. 3M 8210) during application. See HiBAR™ MSDS (Material Safety Data Sheet) for further information.

HiBAR™ requires no general maintenance. Building owner should periodically inspect fireproofed areas to ensure no material has been dislodged or damaged.