

# HiBAR

## Technical Data Sheet

### DESCRIPTION

**HiBAR** is a semi-cementitious spray-applied blend of high temperature mineral fibres and proprietary binders. It is used to provide additional thermal resistance, acoustic control and fire resistance to various building assemblies. **HiBAR** does not contain asbestos or free crystalline silica.

**HiBAR** applications harden to an off-white colour with a textured surface. Because this product is sprayed, it naturally follows the contours of existing substrates, fills voids, and can be tamped to the surface as an optional treatment during the application.

### RECOMMENDED SUBSTRATES

The application of **HiBAR** is generally used to improve the fire resistance rating of metal building substrates, but it can also be applied to most suitably prepared surfaces.

- **HiBAR** is used as a fire-retardant insulation applied to rigid structural substrates such as steel truss joists, beams, columns, floor and ceiling assemblies, and exterior walls or partition walls.
- **HiBAR** is used as thermal insulation for prefabricated metal buildings, steel deck roof assemblies, concrete slabs, and masonry or metal wall assemblies.
- **HiBAR** is used as an acoustical treatment applied to ceilings and top walls in noisy areas or in large rooms where both sound absorption and aesthetic improvement are desired.
- **HiBAR** is used as a treatment for the control of condensation on exposed structural components in contact with cold surfaces.

Consult a **SOPREMA** representative to confirm or approve adhesion properties for these types of surfaces prior to applying **HiBAR**.

### SURFACE PREPARATION

Surfaces covered with dirt, oil, peeling paint or other substances that may reduce adhesion should be cleaned or sanded. Cleaning, if necessary, is the responsibility of the building owner.

Make sure that the mechanical and electrical suspension hooks are installed before applying **HiBAR**.

Ensure that adjacent areas not intended for **HiBAR** application are masked with polyethylene during application.

Ensure that power, clean water, adequate lighting, and temporary enclosures (as required) are provided.

Apply an adhesive if necessary.

Slightly premoisten the area to be sprayed before application.

### APPLICATION

The application of **HiBAR** must be performed by an applicator certified by the distributor with the recommended equipment. **HiBAR** is applied by spraying through a pneumatic hose and is moistened with water through an airless nozzle and a pump system.

Apply **HiBAR** spraying the perimeters at the specified locations and thicknesses. On assemblies with pre-established fire resistance (reference: Intertek assemblies), the product shall be applied in strict accordance with Intertek design requirements or any other requirement made by the competent

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authorities and in accordance with the manufacturer's instructions. Strict compliance to specified thicknesses and densities is essential.

Once the work is done, slightly overspray with water. Refit and repair to correct the damage caused by other trades, if necessary.

**CAUTION:** Ensure that the substrate temperature is maintained at no less than 4 °C (39 °F) during application and for a minimum of 24 hours after application is complete. When exterior ambient temperatures are below 4 °C (39 °F), heating and temporary shrouding are required.

### LIMITATIONS

**HiBAR** is not suitable for exterior surfaces that might be exposed to moisture penetration or to interior areas subjected to high humidity unless adequate ventilation is provided. Non-rigid overhead substrates are not suitable for **HiBAR** application unless deviations are limited to less than 1/120<sup>th</sup> of the width, a primary adhesive is used, and the area is free from air traffic or other impact forces until the product has hardened.

The maximum thickness on rigid ceilings without mechanical support is 75 mm (3 in).

Use an adhesive when:

- The thickness is greater than 38 mm (1.5 in)
- The application must be done on painted surfaces (especially on high-gloss finishes)

It is recommended to perform an adhesion test on the surface before starting the application.

Although it offers significant protection, **HiBAR** has not been specifically evaluated for painted or bare wood substrates.

Substrates covered with dirt, loose scale, oil, peeling paint, or other substrates that would impair bonding must be cleaned or sand blasted and have their bonding properties checked before the application.

**FOR MORE DETAILS ON THE INSTALLATION OF PRODUCTS, PLEASE CONSULT YOUR REPRESENTATIVE.**

### PACKAGING

Specifications	HiBAR
Physical state	White fibres
Colour	Off-white
Packaging	18.1 kg (40 lb) bag

(Nominal values)

### PROPERTIES

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Characteristics	Standards	HiBAR
Flame spread	CAN/ULC-S102 ASTM E84	0
Fuel contributed	CAN/ULC-S102 ASTM E84	0
Fire resistance	CAN/ULC-S101	
Column	Design Number CCI-MFF 180-01	(1, 2 and 3 hours)
Wall	Design Number CCI-MFF 120-01	(1 hour and 2 hours)
Floor/ceiling	Design Number CCI-MFF 120-02	(1 hour and 2 hours)
Roof	Design Number CCI-MFF 60-01	(1 hour)
Combustibility	CAN4-S114	Incombustible
Thermal barrier made of plastic foams *	CAN/ULC-S124	15 min. rating Classification A
32 mm thickness 169 kg/m <sup>3</sup> (10,55 lb/m <sup>3</sup> )		
Thermal resistance	ASTM C518	RSI 0.66/25 mm (R-3.76/in.)
Air erosion	ASTM E859	Less than 155 mg/m <sup>2</sup>
Bond strength (cohesive strength)	ASTM E736	Minimum 4.788 kPa
Acoustic absorption 38 mm (1.5 in) sprayed on a solid substrate	ASTM C423	CRB 0.91
Reflectivity of light (350–700 nm visible)	-	About 80%

\*Includes Sopra-SPF

(Nominal values)

### STORAGE AND HANDLING

At all times, even on site, store bags indoors in their original non-perforated packaging and away from moisture.