

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

HiBAR

Technical Data Sheet

accordance with Intertek design requirements or any other requirement made by the competent 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 1/120th 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

HiBAR

Technical Data Sheet

(Nominal values)

PROPERTIES

Characteristics	Standards	HiBAR
Flame spread	CAN/ULC-S102 ASTM E84	0
Fuel contributed	CAN/ULC-S102 ASTM E84	0
Fire resistance Column Wall Floor/ceiling Roof	CAN/ULC-S101 Design Number CCI-MFF 180-01 Design Number CCI-MFF 120-01 Design Number CCI-MFF 120-02 Design Number CCI-MFF 60-01	(1, 2 and 3 hours) (1 hour and 2 hours) (1 hour and 2 hours) (1 hour)
Combustibility	CAN4-S114	Incombustible
Thermal barrier made of plastic foams * 32 mm thickness 169 kg/m ³ (10,55 lb/ft ³)	CAN/ULC-S124	15 min. rating Classification A
Thermal resistance	ASTM C518	RSI 0.66/25 mm (R-3.76/in.)
Air erosion	ASTM E859	Less than 155 mg/m ²
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.