

HDFC™110

High Density Spray Applied Fireproof Coating

PRODUCT DESCRIPTION

HDFC™110 is a vermiculite and portland cement based, wet mix, high density spray-applied fire resistive material.

HDFC™110 is designed to provide fire protection to structural columns and beams in exterior environments and interior situations where the highest levels of abrasion resistance and hardness are necessary. It contains phyllosilicate aggregates, which are highly effective in resisting the heat of hydrocarbon fires. The thickness of the fire protection layer to be applied depends on the specified fire resistance.

PRODUCT FEATURES

- High compressive strength.
- High performance.
- Pre-bagged, dry mortar mix for application by wet spray process.
- Easy to apply.
- Durable and resistant to cracking or spalling under mechanical impact.
- Lightweight formulation results in reduced dead loads.
- HDFC™110 provides cost effective fire resistance.
- Does not release toxic or hazardous fumes, and presents no known health hazards either before, during and after application.
- Over 10 years of proven performance.

PRODUCT USES

HDFC™110 is used for concrete and reinforced concrete structures exposed to fire hazards include:

- Residential and commercial buildings
- Refineries
- Nuclear and conventional power plants
- Petrochemical
- Pulp and paper mills
- Offshore platforms
- Factories
- Warehouses
- Gas stations

HOW TO USE

SURFACE PREPARATION

The substrate shall be clean, dry and free from dust, loose mill scale, loose rust, oil and any other condition preventing good adhesion. For maximum long term in service durability, the use of lightweight mesh reinforcement is recommended for exterior work and for interior use where vibration or mechanical damage and the possibility of subsequent loss of adhesion exist. It can be also use for rectangular and square beams.

The primary method for steel surface preparation is abrasive blasting using grit or other suitable abrasive.

MIXING

Add 8.5-10 liters of clean, potable water to a mortar mixer with rubber tipped blades. With mixer running slowly, add powder and mix for 5 minutes (10 minutes maximum) until a homogeneous mortar-like consistency is achieved. Total water must not exceed 10.5 liters per bag.



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APPLICATION

An airless spray pump is recommended for application of HDFC™110 fireproof coating. HDFC™110 may be applied when air humidity is less than 97%.

TECHNICAL DATA

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Colour	Grey
Density	1 to 1.1 gr/cm ³
Thermal Conductivity	0.39 W/m °C
Compressive Strength	10.9 MPa
Theatrical coverage	11 m ² /kg at 10 mm thickness
Application Methods	Airless Spray
Shelf Time	15 months
Storage Condition	Store dry and away from direct sunlight +4 to +45°C

HANDLING

Approved personal protection equipment should be worn at all times. Particle mask is recommended for possible airborne particles. Gloves are recommended when handling mortar to avoid skin irritation. Safety glasses are recommended to prevent eye irritation. Wear chemical resistant clothing/gloves/goggles. Ventilate area. In absence of adequate ventilation, use properly fitted respirator.

STORAGE

Store in dry, shaded conditions away from sources of heat and ignition. Store indoors in temperature between +4°C to +45°C. Shelf life is 15 months when kept at recommended storage conditions.

FIRST AID

All components of fireproofing systems may cause skin irritation and sensitization. Use of chemical resistant gloves is recommended.

Avoid breathing vapors and dust. Get medical attention if you are breathing with difficulty.

Fireproofing products can cause strong eye irritation. Avoiding eye contact and using safety goggles is necessary.

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water; contact physician immediately. For respiratory problems, remove to fresh air. Wash clothing before reuse.

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DISCLAIMER OF LIABILITY

AFZIR, LLC warrants its products to be free from manufacturing defects. Buyer determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to replacement of product. Any claim for breach of this warranty must be brought within six months of the date of purchase.

AFZIR shall not be liable for any consequential or special damages of any kind, resulting from any claim or breach of warranty, breach of contract, negligence or any legal theory.

The Buyer, by accepting the products described herein, agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production.