

# HDFC™110

High Density Spray Applied Fireproof Coating



Building & Transportation



Oil, Gas & Industrial



Offshore & Onshore



Water & Wastewater



## PRODUCT DESCRIPTION

The CTech-LLC® HDFC™110 is a vermiculite and Portland cement based, wet mix, high density spray-applied fire resistive material. The 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.

## ADVANTAGES

- Vermiculite and Portland cement based.
- High density spray-applied fire resistive material.
- Durable and resistant to cracking or spalling under mechanical impact.
- The material can be used as a hard topcoat to obtain increased levels of abrasion and impact resistance
- 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.

## PHYSICAL and MECHANICAL PROPERTIES

Color	Gray
Density	1 to 1.1 gr/cm <sup>3</sup>
Thermal Conductivity	W/m °C
Compressive Strength	10.9 MPa
Theatrical coverage	11 m <sup>2</sup> /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

## TYPICAL USES

Recommended areas of application include: residential and commercial buildings, refineries, petrochemical, pharmaceutical facilities, pulp and paper mills, offshore platforms, nuclear and conventional power plants, factories, warehouses, institutional and biomedical facilities.

## INSTALLATION PROCEDURE

This section outlines the general procedure of providing fire protection to concrete and steel structural elements by using CTech-LLC® HDFC™110 fireproof coating.

### SURFACE PREPRATION

- The substrate shall be clean, dry and free from dust, loose mill scale, loose rust, oil and any other condition preventing good adhesion.
- The primary method for steel surface preparation is abrasive blasting using grit or other suitable abrasive.

### MESH REINFORCEMENT

For maximum long term in service durability, the use of lightweight mesh reinforcement is recommended for exterior wok and for interior use where vibration or mechanical damage and the possibility of subsequent loss of adhesion exist.

### MIXING

Add 8.5 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. Longer mixing times may result in lower densities. Total water must not exceed 10.5 liters per bag.

### 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%.

### STORAGE & SHELF LIFE

- Store indoors in a dry environment between +4°C to +45°C.
- Shelf life is 15 months when kept at recommended storage conditions.

### CAUTION

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.

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#### CTech-LLC<sup>®</sup>

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#### IMPORTANT NOTE:

Before using any CTech-LLC<sup>®</sup> product, the user must review the most recent version of the product's technical data sheet, material safety data sheet and other applicable documents, available at [www.ctech-llc.com](http://www.ctech-llc.com).

#### WARANTY:

CTech-LLC<sup>®</sup> 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 one month of the date of purchase. CTech-LLC<sup>®</sup> 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 utilizing.