

Fi-Protech

Insulation and fire-rated panel

火保得

隔熱防火板

Established in 2005 and headquartered in Hong Kong, Fi-Protech Holdings Limited is specialized in the research and development of innovative fire protection building materials and technology.

Supported by a competent team of international experts in fire protection and insulation industry, the introduction of Fi-Protech Insulation & Fire-Rated Panel has positioned Fi-Protech Holdings Limited in the spot light of international arena which is praised by leading consultants, engineers and specialist contractors engaging in the building industry.

Changzhou Fi-Protech Building Materials Company Limited, wholly-owned by Fi-Protech Holdings Ltd, is the center of research and development as well as the manufacturing base for Fi-Protech products. Located in Changzhou City, Jiangsu Province, Mainland China, the center covers a land area in excess of 20,000 square meters. Equipped with four fully automatic production lines, the plant is capable of producing 1,000,000 square meters of Fi-Protech panels annually.

The state-of-the-art facility represents a major investment by the parent company for long term commitment in the fire protection and insulation industry.

火保得控股有限公司於2005年成立，總部設於香港。公司的業務專注科研及開發新一代的防火材料與技術。

火保得的科研團隊實力雄厚，成員包括國內及海外國際級的專家，對防火工業擁有長久和豐富的經驗。自火保得隔熱防火板的面世，已獲國際防火工程業界推崇為創新產品。

位於中國常州市的常州火保得防火板有限公司的父母公司為香港火保得控股有限公司，主營以「火保得」為品牌生產和加工蛭石防火板。生產基地位於中國江蘇省常州市武進高新技術開發區，佔地面積超過20,000平方米，設4條自動化蛭石板生產線，年產量可達1,000,000平方米。

香港火保得控股有限公司在研發和生產的龐大投資，實現了火保得集團決心建立一個強大、可持續性發展的防火材料工業長遠策略，為社會建造一個安全的生活和工作環境。



Fi-Protech panels are made from vermiculite, a kind of natural mineral. After being exfoliated, the vermiculite is mixed with proprietary chemical bonding agent to form the basic raw material. The raw material, after going through a heating and pressing process – Fi-Protech panels are formed.

Vermiculite, with various unique properties, has been used for a many decades in the US and Europe for fire protection and insulation purpose. Our proprietary technology allows us to produce boards with various thicknesses and densities to suit a wide range of applications.

In view of its non-combustible; remarkably low thermal conductivity and fire-resistance up to 1,200 degree Celsius, Fi-Protech panels are unique and considered by professionals to be the best choice among fire-resistance products available in the market.

火保得隔熱防火板是採用天然無機蛭石礦物作為材料，經過膨脹蛭石，通過一種粘合劑和化學添加劑把粒狀膨脹蛭石粘結起來成板。

蛭石是一種無毒、無煙、無味的環保物料，具永不燃燒特性(融點約1,400度攝氏)。另外，每粒膨化蛭石本身有無數小孔，這些小孔夾帶空氣，使蛭石成為優良隔熱材料。在歐、美的先進國家一直都是用來防火、隔熱。火保得已成功利用熱壓技術製成不同厚度及密度的隔熱防火板。

由火保得自主研發及生產的隔熱防火板，已經過嚴格國際標準的測試並確認其質量符合國際防火要求。火保得隔熱防火板適用於各類商業及住宅項目。





Ingredients



Before exfoliated
膨化前蛭石



Close up of exfoliated ore
膨化後蛭石特寫

In exfoliating vermiculite ore, its volume will expand as many as 8 to 30 times of the original size. Its volumetric density is less than water. Moreover, each expanded vermiculite flake has numerous pores and spaces throughout itself with lots of entrained air like hollow blocks.

As a result, the expanded vermiculite with its trapped air becomes an excellent insulator. In addition, this inorganic mineral is non-combustible (melting point at approximately 1,400 degree Celsius).

Developed by the Fi-Protech Research and Development Team, Fi-Protech insulation and fire-rated panels have gone through stringent tests and comply with international fire regulations for commercial and residential applications.

Fi-Protech vermiculite chemical composition – Please visit www.fi-protech.com

Specifications



Fire resistant tested up to 1,200 degree C
1,200度攝氏防火測試

Fi-Protech panels are tested and certified to comply with the following industry standards:

- BS 476 Part 4, 1970
- Asbestos Free
- No heavy metal and non radioactive
- Fire resistant and thermal conductivity

Special properties of Fi-Protech panels

- Fire-resistance
- Smokeless
- Non-toxic
- Odorless
- No radiation
- Non-combustible
- Sound absorbing
- Mildew proofing
- Insect resistance
- Simple installation
- Durable
- Environmentally friendly

Applications

Fi-Protech panels are designed and manufactured to comply with international fire protection regulations of commercial, industrial, DG storage, chemical plant, power plant, institutional, residential and public facilities, such as:

- Steel structure
- Airport
- Railway station
- Cruise terminal
- Convention and exhibition center
- Highrise building
- Entertainment complex
- Hotel and serviced apartments
- Shopping mall
- Warehouse



材料特性

膨化蛭石粒子中，體積比原來的增加8-30倍，密度相應非常輕。另外，每粒膨化蛭石本身有無數小孔，這些小孔夾帶空氣，使蛭石成為優良隔熱材料。它是一種無機礦物，具永不燃燒特性(融點約1,400度攝氏)。

由火保得自主研發及生產的隔熱防火板，已經過嚴格國際標準的測試及確認其質量符合國際防火要求。火保得隔熱防火板適用於各類商業及住宅項目。

火保得蛭石化學成份 — 請瀏覽 www.fi-protech.com

產品使用

火保得隔熱防火板的設計和生產符合國際防火條例，適用於商業、工業、危險倉庫、化工廠、發電廠、學校、住宅和公共設施等項目，例如：

- 鋼結構建築
- 機場
- 火車站
- 郵輪碼頭
- 會議展覽中心
- 高層建築
- 娛樂場
- 酒店及公寓式住宅
- 商場
- 燃料倉庫

產品規格

火保得隔熱防火板依照國際標準測試，合符下列防火標準及要求：

- BS 476 Part 4, 1970 英國建築材料和結構防火測試之第4部份 - 不燃性測試
- 不含石棉
- 不含重金屬及沒有放射性物質
- 防火及絕緣

火保得隔熱防火板有以下特性：

- | | |
|--------|--------|
| • 防火 | • 吸音 |
| • 無煙 | • 防霉 |
| • 無毒 | • 防蟲 |
| • 無味 | • 安裝簡易 |
| • 無放射性 | • 耐用 |
| • 不燃 | • 環保 |



Fire-rated and insulation partition/ceiling
隔熱防火間牆及天花



Fire-rated doors
隔熱防火門



Fire-rated ducting
隔熱防火風管



Thermal insulation for industrial furnace
工業熔爐隔熱



Fire protection for structural steel beam
鋼結構梁柱保護

- Asbestos test
- BS476 part 4 1970
- Chromium(VI) test
- Formaldehyde test
- Green label certificate
- Heavy metal and radioactive
- Non-combustibility test for marine structural material
- Thermal conductivity at 40 celsius degree
- Thermal conductivity at 400 & 800 celsius degree



- 石棉檢驗報告
- 英國建築材料和結構防火測試之第4部份 — 不燃性測試報告
- 六價鉻檢驗報告
- 甲醛測試
- 香港環保證書
- 重金屬及放射檢驗報告
- 船用結構材料不燃性試驗
- 熱導率 (平均溫度40°C)
- 熱導率 (平均溫度400 / 800°C)
- 蛭石防火板鋼柱保護系統
- 建築隔牆用輕質條板檢驗
- 燃燒性能
- 材料產烟毒性

Standard sizes

標準尺碼

| Thickness (mm) 厚度 (毫米) | Sizes: L x W 長 X 闊 (毫米) | Recommended density (kg/m ³) 建議密度 (每立方米/千克) |
|------------------------|-------------------------|---|
| 12 | 2100 x 900 | 500 - 750 |
| 20 | 2100 x 900 | 450 - 700 |
| 25 | 2100 x 900 | 450 - 650 |
| 29 | 2100 x 900 | 400 - 600 |
| 38 | 2100 x 900 | 400 - 600 |
| 45 | 2100 x 900 | 400 - 500 |
| 12 | 2440 x 1220 | 500 - 750 |
| 20 | 2440 x 1220 | 450 - 700 |
| 25 | 2440 x 1220 | 450 - 650 |
| 29 | 2440 x 1220 | 400 - 600 |
| 38 | 2440 x 1220 | 400 - 600 |
| 45 | 2440 x 1220 | 400 - 500 |

* The dimension of the board can be adjusted on buyer's request.

* 板材尺寸可按客人要求作調整



火保得控股有限公司
Fi-Protech Holdings Limited

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