



岩棉UL認證 - 建築物安全 & 保險

- 貴公司投保火險的建築物真的防火嗎？
- 同樣用岩棉作為建築物防火材料，為何不選有國際認證的？
- 材料成本是一時，保險費及建築物安全才是永久的，不是嗎？

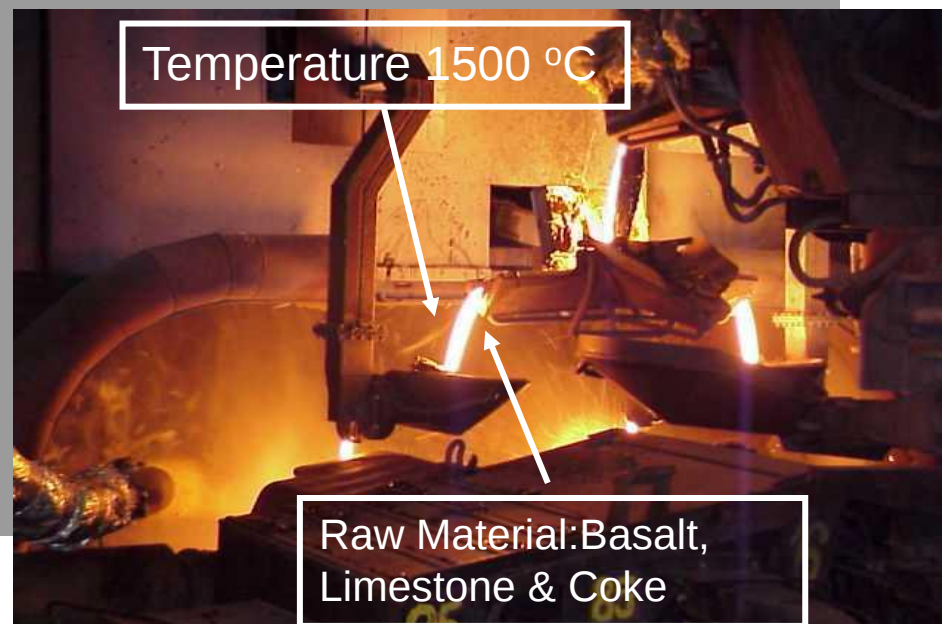


為何安裝防火內外牆及屋頂的廠房在大火中不到半小時就燒光了嗎？



岩棉及其防火用途

- ❑ 岩棉 (Rockwool) 是由玄武岩及白雲石在高達 $1500-1800^{\circ}\text{C}$ 的溫度下融化後再抽絲而成的一種材料
- ❑ 岩棉具有保溫、隔熱、吸音、防火的功能
- ❑ 岩棉取代原有使用於建築物或工業設施中的玻璃棉、保麗龍、PU 發泡類等的隔熱及吸音材料 → 因為防火
- ❑ 目前國內外的防火內牆、防火外牆、防火屋頂以及貫穿部絕大部分均使用岩棉為其必需之填充材。
- ❑ 防火系統中岩棉是很重要, 因為岩棉的隔熱效果阻絕高溫的傳遞, 而且其不自燃也不會產生濃煙。



歷史上重大的火災

- ❑ 衛爾康大火
- ❑ 東方科學園區大火 →
- ❑ 金沙百貨大火
- ❑ 圓山飯店屋頂火災
- ❑ 日月光中壢廠大火/聯電竹科廠大火
- ❑ 茂迪南科廠大火/金像電中壢廠大火
- ❑



什麼才是真的防火岩棉

劣質大陸岩棉

實際燃燒後結果:

防火岩棉



Sintering test	Shrinkage (%) & Texture condition	防火岩棉	大陸棉1	大陸棉2	大陸棉3
At 500° C	Passed	Passed	Passed	Passed	Passed
At 650° C	Passed	Passed	Passed	Passed	Passed
At 1000° C	長度變化	2%	12%	32%	13%
	寬度變化	2%	12%	34%	17%
	厚度變化	4%	4%	17%	12%
	Hole 孔洞	No	Yes	Yes	Yes
	Woolly 毛絨狀	Yes	No	No	No
	Sinter 燃燒結晶	No	Yes	Yes	Yes

如何確保您保險的建築物中使用的岩棉的防火性能是可靠的

➤ 國際認證 – U L 對岩棉製造廠的認證

UL 認證的優點：

- ❑ 專業的第三方國際認證才有保障
- ❑ U L 認證是每年到工廠隨機取樣測試，無法作假，可信度高
- ❑ 建築材料如有 U L 認證等國際認證，可讓業主每年投保的火險費用降低
- ❑ 可有效保障建築物在火災時，岩棉真實的防火性能，阻止火災的擴散
- ❑ 劣質大陸岩棉其融點較低（因加入礦渣），且加入過量的可燃燒膠合物質，並無法真的防火

ROCKWOOL的UL認證 – 建築用岩棉板

Certificate of Compliance

Certificate Number 20090614-R26078C
Report Reference R26078, 1997 September 11
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Issued to: **ROXUL ASIA SDN BHD**
175 A & B, Kawasan Perindustrian Air Keroh,
Jalan Lingkungan Usaha,
75450 Melaka Malaysia

This is to certify that representative samples of **Mineral and Fiber Boards**
Mineral-fiber boards or blankets bound with a resin binder.

Have been investigated by Underwriters Laboratories Inc.® in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: **UL 723 - Standard For Test For Surface Burning Characteristics Of Building Materials**

Additional Information: *****SEE ADDENDUM PAGE 1*****

Only those products bearing the UL Classification Mark should be considered as being covered by UL's Classification and Follow-Up Service.

The UL Classification Mark includes: UL in a circle symbol  with the word "CLASSIFIED" (as shown); a control number (may be alphanumeric) assigned by UL; a statement to indicate the extent of UL's evaluation of the product; and, the product category name (product identity) as indicated in the appropriate UL Directory.

Look for the UL Classification Mark on the product

Issued by: Lavanya Govardhanam

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This is to verify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

CLASSIFICATION:

MINERAL AND FIBER BOARD'S SURFACE BURNING CHARACTERISTICS

	Unfaced Board
Flame spread	0
Smoke developed	0

Issued by: Lavanya Govardhanam

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