

The Tools to Verify Fire Safety of Products

The new mark
of Certification



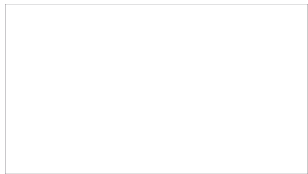
Abu Dhabi



Dubai

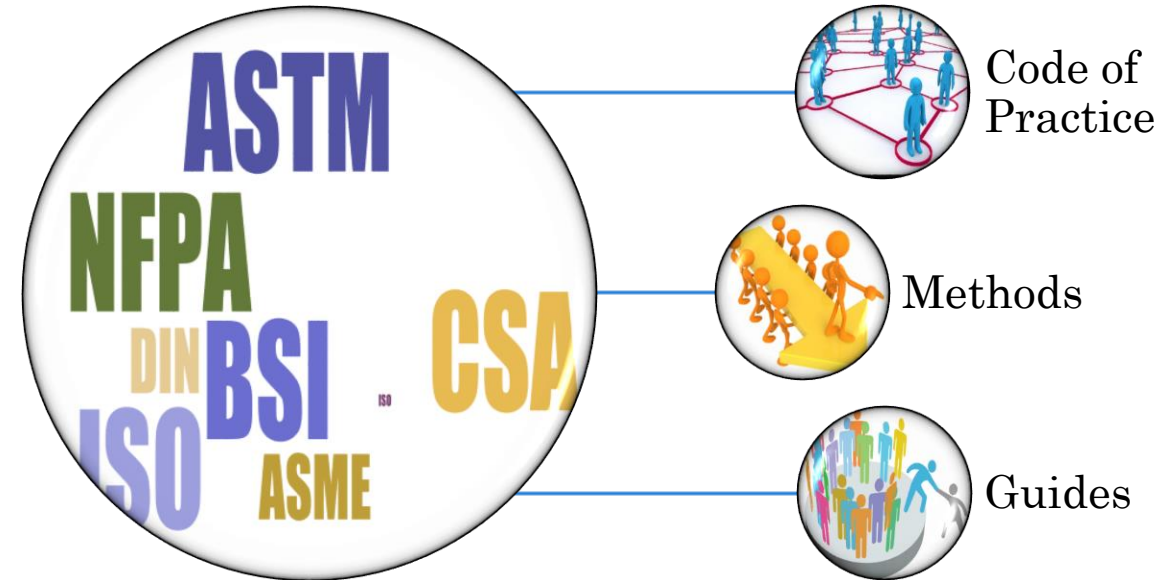


Doha



Types of Standards

- **Codes of practice** recommend sound good practice as currently undertaken by competent and conscientious practitioners.
- **Methods** are also highly prescriptive, setting out an agreed way of measuring, testing or specifying what is reliably repeatable in different circumstances and places
- **Guides** are published to give less prescriptive advice which reflects the current thinking and practice amongst experts in a particular subject



Codes of Practice

Recommend sound good practice as currently undertaken by competent and conscientious practitioners.

- BS 7121: Code of practice for safe use of cranes.
- AS/NZS 5848: Code of practice for bungy jumping
- BS 6266: Fire protection for electronic equipment installations. Code of practice
- UAE Fire and Life Safety Code of Practice
- Saudi Building Code

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Methods

are also highly prescriptive, setting out an agreed way of measuring, testing or specifying what is reliably repeatable in different circumstances and places

- ISO 11925-2: Ignitability of products
- EN 13501-1 Fire classification of construction products & building elements.
- ASTM D 1929 Test Method for Determining Ignition Temperature of Plastics.
- EN 13823 Reaction to fire tests by a single burning item test
- NFPA 285 Fire Propagation Of Exterior Non-load Bearing Wall Assemblies
- UL 10C Standard for Fire Tests of Door Assemblies
- EN 1634 - 1 Fire resistance test for door and shutter assemblies & windows

Guides

are published to give less prescriptive advice which reflects the current thinking and practice amongst experts in a particular subject

- ISO/IEC 17025: specifies the general requirements for the competence to carry out tests and/or calibrations, including sampling
- ISO/IEC 17020: Requirements for bodies performing inspection
- ISO/IEC 17065: Requirements for bodies certifying products, processes and services
- ISO/IEC 17024: Bodies operating certification of persons
- AA ADM: Aluminum Design Manual, 2015 Edition

Usage of Standards



4439

System Outline

102 Wood/Water Boarding

- Drawing references: Proj-12345-007 and Proj-12345-017
- Breather membrane: As clause 336.
- Battens and counterbattens:
- Counterbattens:
- Timber: Regularized softwood free from decay and insect attack and with

Regulation

High Street South, D
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sheet external cladding and soffits



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Inspection Agency

Material Re
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Special Inspection
Agency

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Testing
Laboratory

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1.01.00 SITE TRACE AND LEVELING

TL-626

Description:

- Performed by survey crew, specialists in this field, grading instruments supported by laser equipment. These works include locating the areas and guiding the earthworks crew in order to meet the project grade for every area considered in the scope of works (Warehouse slabs, guard house, substation pad, sidewalks, power meter booth, dock yard, parking and driveways). This will be in accordance to an approved grading plan.

1.02.00 SITE CLEARING

Description:

- Performed with machinery (bulldozer and grader) over the property in order to remove the organic topsoil. This procedure also considers the natural ground ripping

GAC

مركز الإعتامد الخليجي
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TESTING

ISO/IEC 17025:2005

No. ATL 0017

ISO/IEC 17025 : Competence to carry out tests..

ISO/IEC 17020 : Bodies performing inspection..

ISO/IEC 17065 : Bodies certifying products, processes and services

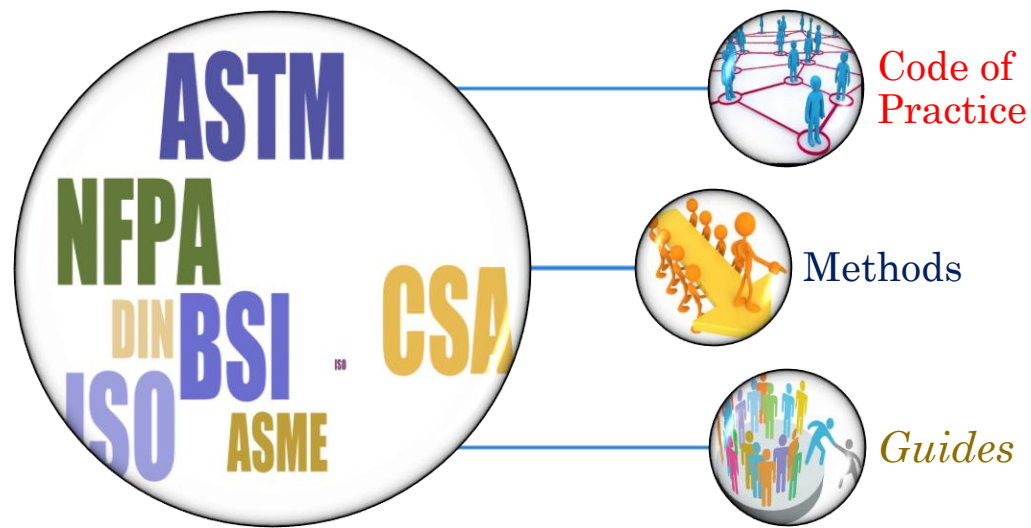
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*Recommend **sound good practice** as currently undertaken by competent and conscientious practitioners.*

*Prescriptive, setting out an **agreed way of measuring, testing or specifying** what is reliably repeatable*

*Less prescriptive advice which is **current thinking and practice amongst experts** in a particular subject*

Tools to establish conformity to standards and codes

Cladding Example



Cladding (construction)

From Wikipedia, the free encyclopedia

← It has been suggested that this article be merged with *Siding*. (*Discuss*) *Proposed since March 2018*.

Cladding is the application of one material over another to provide a skin or layer. In **construction**, cladding is used to provide a degree of **thermal insulation** and **weather resistance**, and to improve the appearance of buildings.^[1] Cladding can be made of any of a wide range of materials including wood, metal, brick, **vinyl**, and composite materials that can include aluminium, wood, blends of cement and recycled **polystyrene**, wheat/rice straw fibres.^[2] **Rainscreen cladding** is a form of weather cladding designed to protect against the elements, but also offers thermal insulation. The cladding does not itself need to be **waterproof**, merely a control element: it may serve only to direct water or wind safely away in order to control **run-off** and prevent its infiltration into the building structure. Cladding may also be a **control element for noise**, either entering or escaping. Cladding can become a fire risk by design or material.

تصفيح (بناء) ^[عدل]

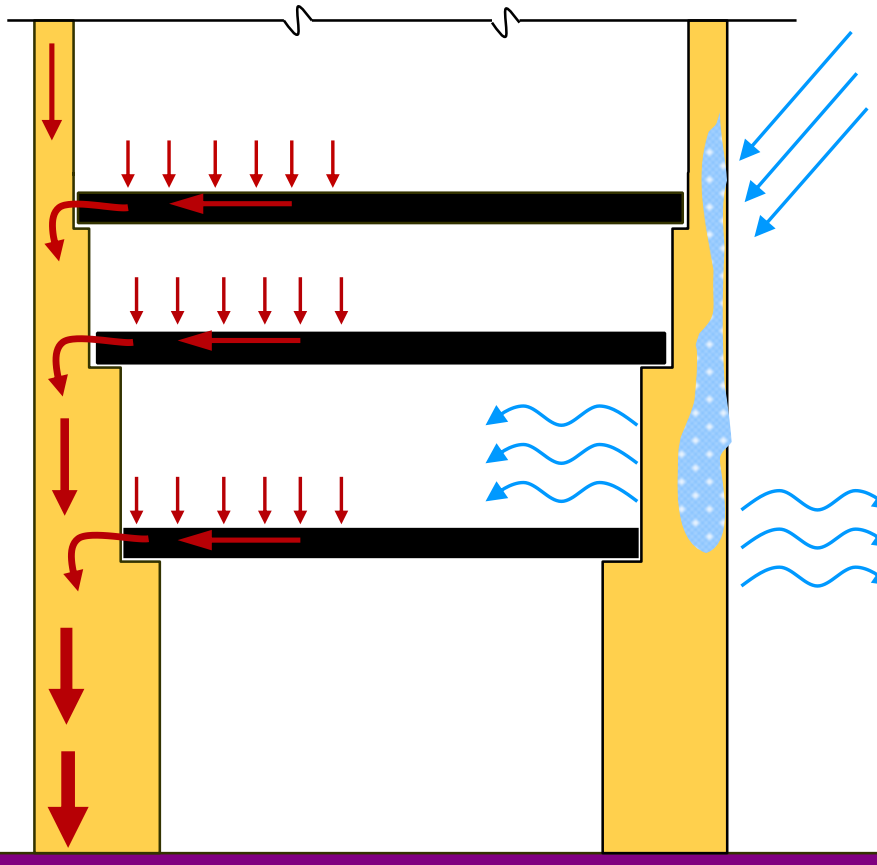
التصفيح أو **التكسية** **(بالإنجليزية: Cladding)** في المباني يشير إلى الطبقة الخارجية لهيكل المبنى بهدف مقاومة الضغوط الميكانيكية والعوامل الكيميائية والغلاف الجوي، بالإضافة إلى انه يمثل مرحلة تشطيب على مستوى جمالي.

هو تنفيذ أحد المواد على أخرى في الطبقة الخارجية للمباني لتوفير طبقة خارجية تهدف إلى السيطرة على ظروف الطقس، أو لأغراض جمالية. لا يشترط أن يكون التصفيح عازلا للمياه، إلا إنه يؤدي إلى توجيه مياه الأمطار أو الرياح بطريقة آمنة ومنع تسللها إلى هيكل المبنى. يتم تنفيذ التكسية أيضا على الشبابيك في بعض الأحيان ضمن تخصص هندسي نادر.^{[[[انص مبهم]]]} وخذ **أحمال** الرياح بعين الاعتبار، ويجب أيضا معرفة الأحجام القياسية المتوفرة من مادة التصفيح سواء كانت **حجرية** أو معدنية **كالنحاس** أو **الألمنيوم** أو غيرها، للحد من هدرها، وهذا يساعد بالتالي على خفض التكاليف. ويعتمد اختيار أي نظام تكسية على التأثير الجمالي المطلوب، كما أن البناء الهندسي يمكن أن يكون له أيضا تأثير على هذا الاختيار.^{[1] [2]}

تعتبر التكسية المعدنية دائمة، وخفيفة الوزن مقارنة مع المواد والتقنيات الأخرى، كما إنها قابلة **لإعادة التدوير** بعد إنتهاء العمر الافتراضي للبناء. ويمكن استخدام التصفيح في **التسقيف** / أو في أعمال الواجهات بحيث تكون أرخص من الألواح أو أنواع **البلاط**، خصوصا عندما تؤخذ **قوى التحمل** بالاعتبار، واللون الدائم، بالإضافة إلى عدم الحاجة للصيانة وخفة الوزن.^[3]

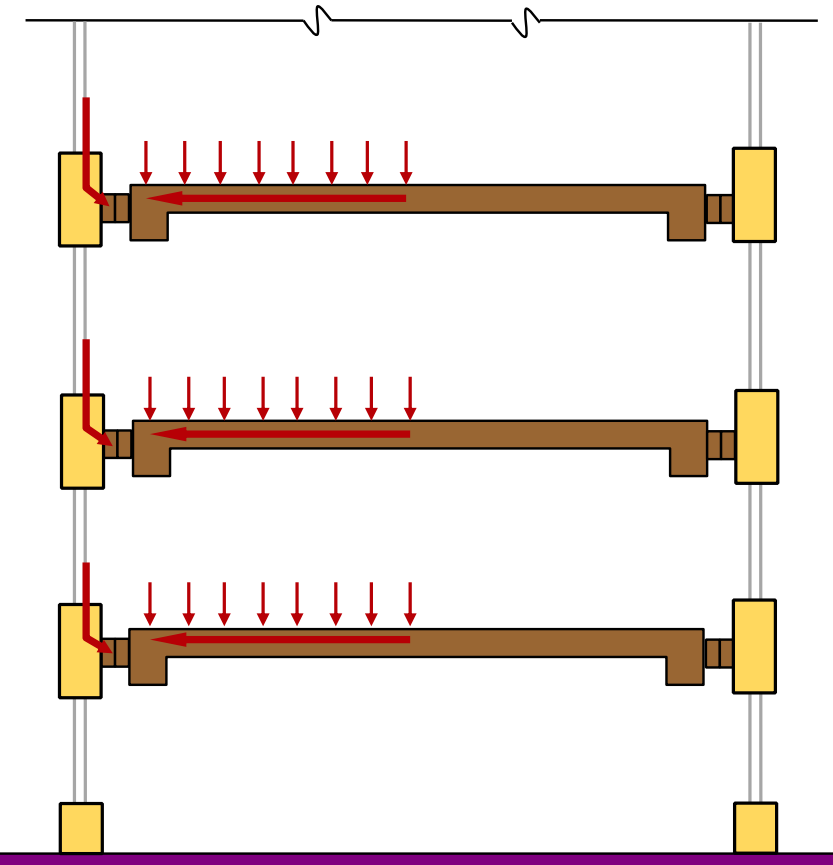
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Functions of Façade or Cladding System



- Air Barrier
- Water Barrier
- Thermal Barrier
- Vapour Barrier

- حاجز الهواء
- حاجز المياه
- حاجز حراري
- حاجز الرطوبة / بخار الماء



Load Bearing / Masonry

Walls Till ~1950s

Contemporary Walls (1950s

Reference Brian D. Kuhn, P.E. presentation at SFPE meeting in to present)
2013

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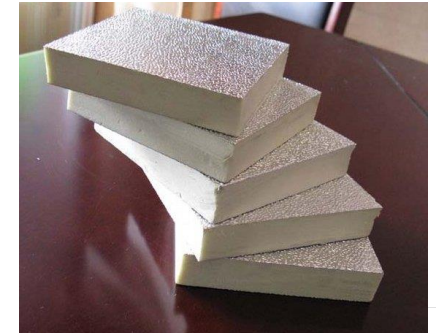
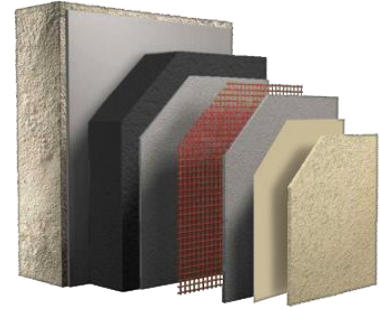
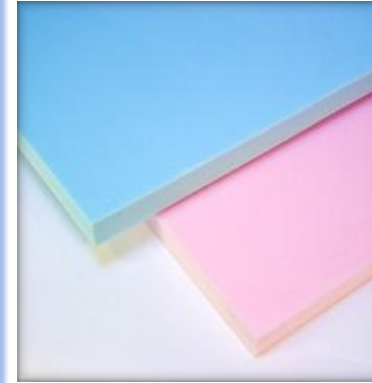
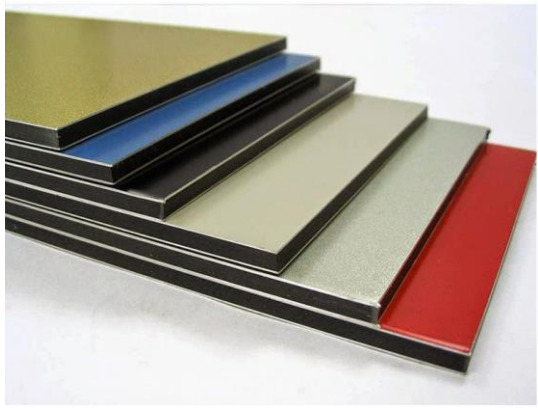
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Materials For Cladding

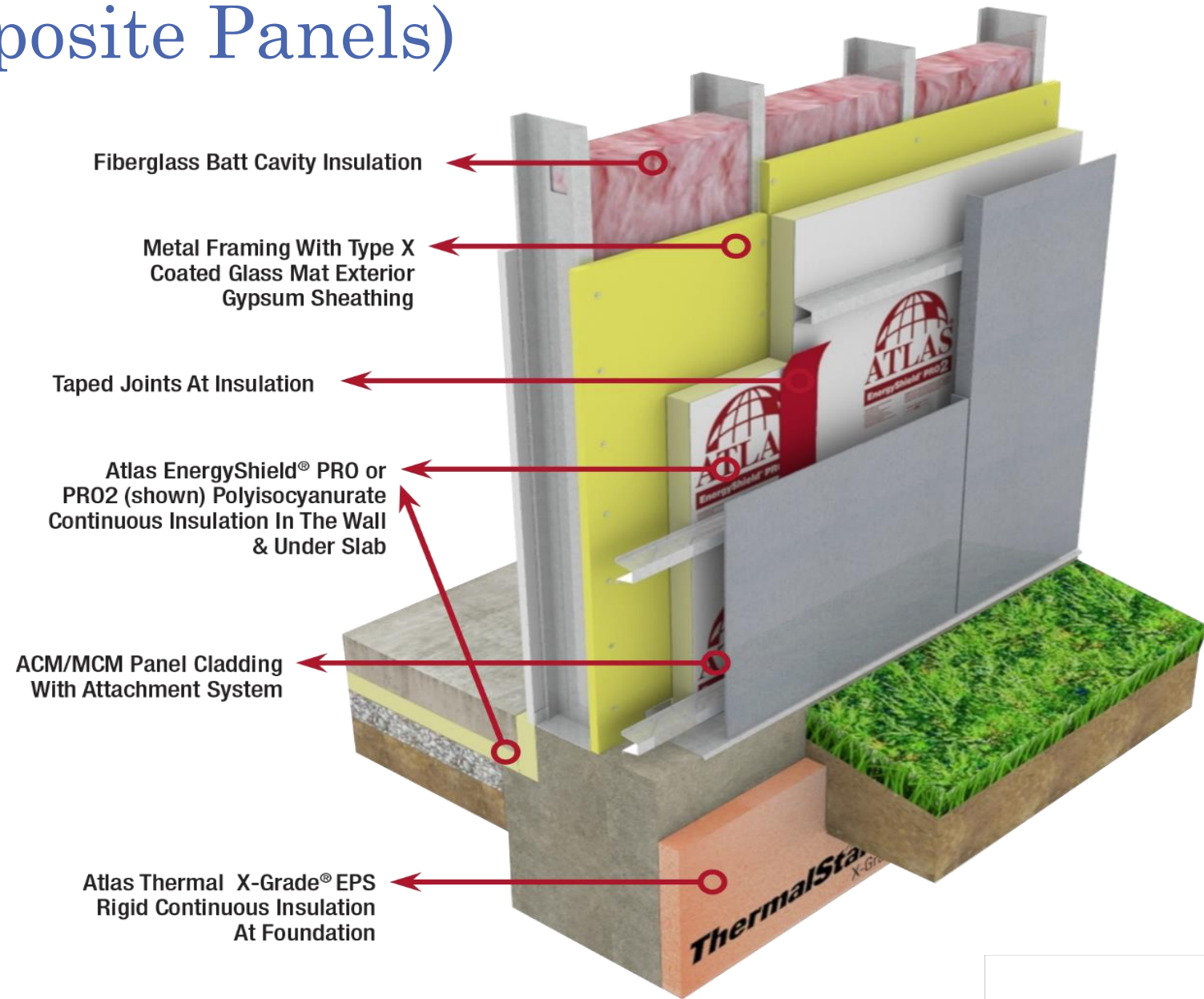
مواد التغطية

- Air Barrier
- Water Barrier
- Thermal Barrier
- Vapour Barrier

- حاجز الهواء
- حاجز المياه
- حاجز حراري
- حاجز الرطوبة / بخار الماء



ACP (Aluminum Composite Panels)



Approval of Cladding System



Risk Assessment

Fire Consultant | Façade Specialist | Contractor

Inspection

Assembly
test or tests

Material
Reaction to
Fire Tests

Certification
& Listing



Ignitability

Combustibility

Calorific Value

Flame Spread, Smoke



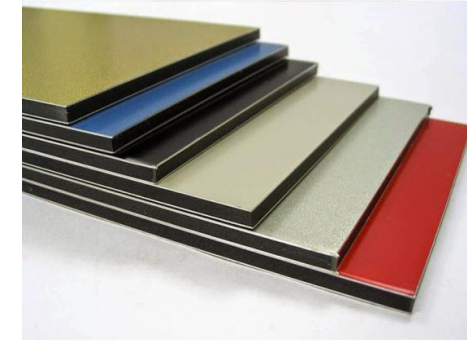
Assembly



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Material Testing



Reaction to Fire

درجة الاشتعال



Ignitability

القابلية للاحتراق



Combustibility

Reaction to Fire

القيمة الحرارية



Calorific Value

انتشار اللهب،
الدخان



Flame Spread,
Smoke

Single Flame Source



Calorimeter



Non-Combustibility Test



Ignition Temperature of Plastics

Flame Spread,
Smoke Developed



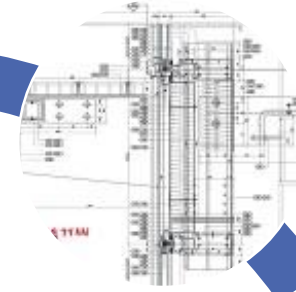
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مراجعة المخططات
وعملية الانتاج



Review of
Drawings and
production
process

الاختبار



Testing



تفتيش المصنع



Factory
Inspections

اصدار الشهادة



Certification





Home Our Website Contact Us

Certification Listing

Search results for your query:

Certificate Number		Test
TBW0300119.1	Interplast Company Limited	Alupex FR Aluminium Composite Panel Non-loadbearing Exterior Wall Cladding System
TBW0300120.1	Eival Colour SA	etalabond® FR 4.0 mm thick Aluminium Composite Panel Non-Loadbearing Exterior Wall Cladding System
TBW0300129.2	Eurocon Building Industries FZE (a subsidiar	Alubond usa FR Euroclass B 4.3 mm thick Aluminium Composite Panel Non-Loadbearing Exterior Wall Cladding System
TBW0300137.1	Alubond Turkey Alüminyum Kompozit Panel San.	Alubond U.S.A. FR-A2" 4.0 mm thick Aluminium Composite Material Non-Load-Bearing Exterior Wall Cladding Assembly

Scheme	Description
1	Fire Doors and Hardware
2	Fire Rated Separating Constructions
3	Exterior Wall Assemblies, Claddings, Curtain Walls, Building Materials, Products & Assemblies
4	Wood Fire Doors Constructed by Core Suppliers' Licensees

Certification Mark

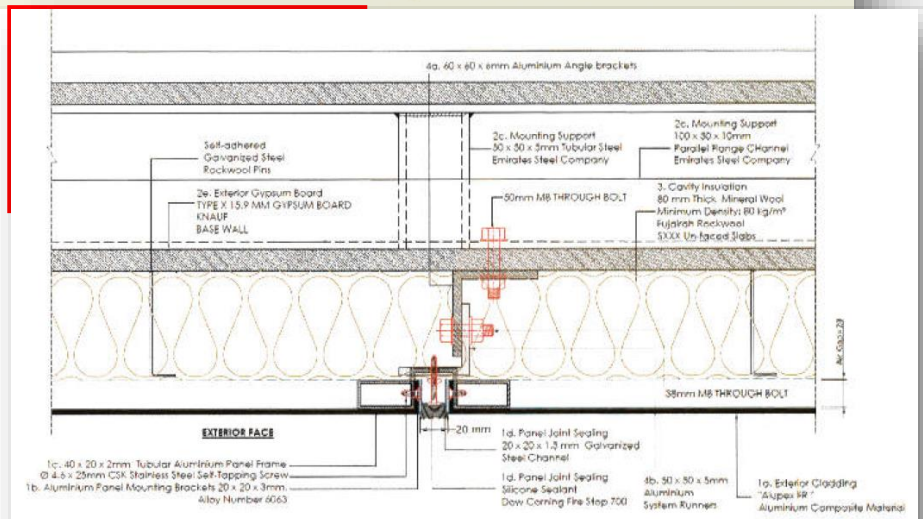


Figure 3. "Alupex FR" non-load-bearing exterior wall cladding Horizontal section details

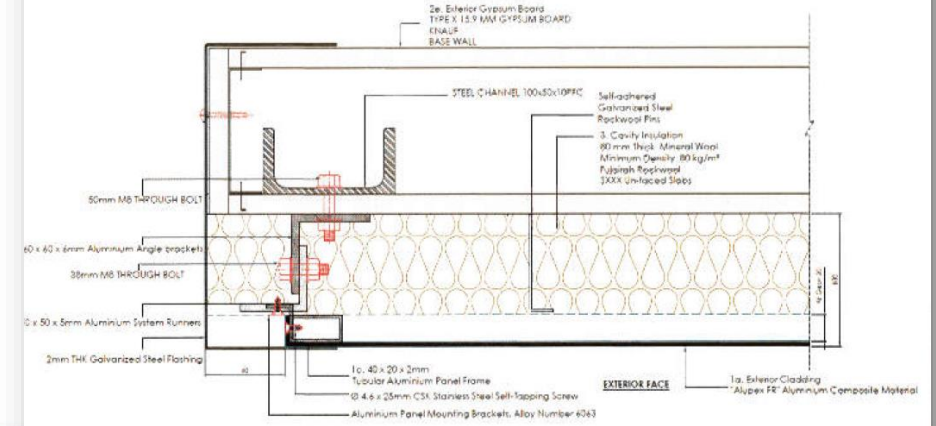


Figure 4. "Alupex FR" non-load-bearing exterior wall cladding window side flashing details

Certificate number: TBW0300119.1

Page 5 of 9


 Certification Manager
 Nick Purcell

Seal number: 100166

Issued: 21 Feb. 2017
Valid to: 30 May. 2019



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Assembly Tests

Assembly Tests

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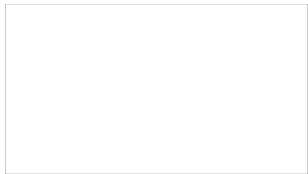
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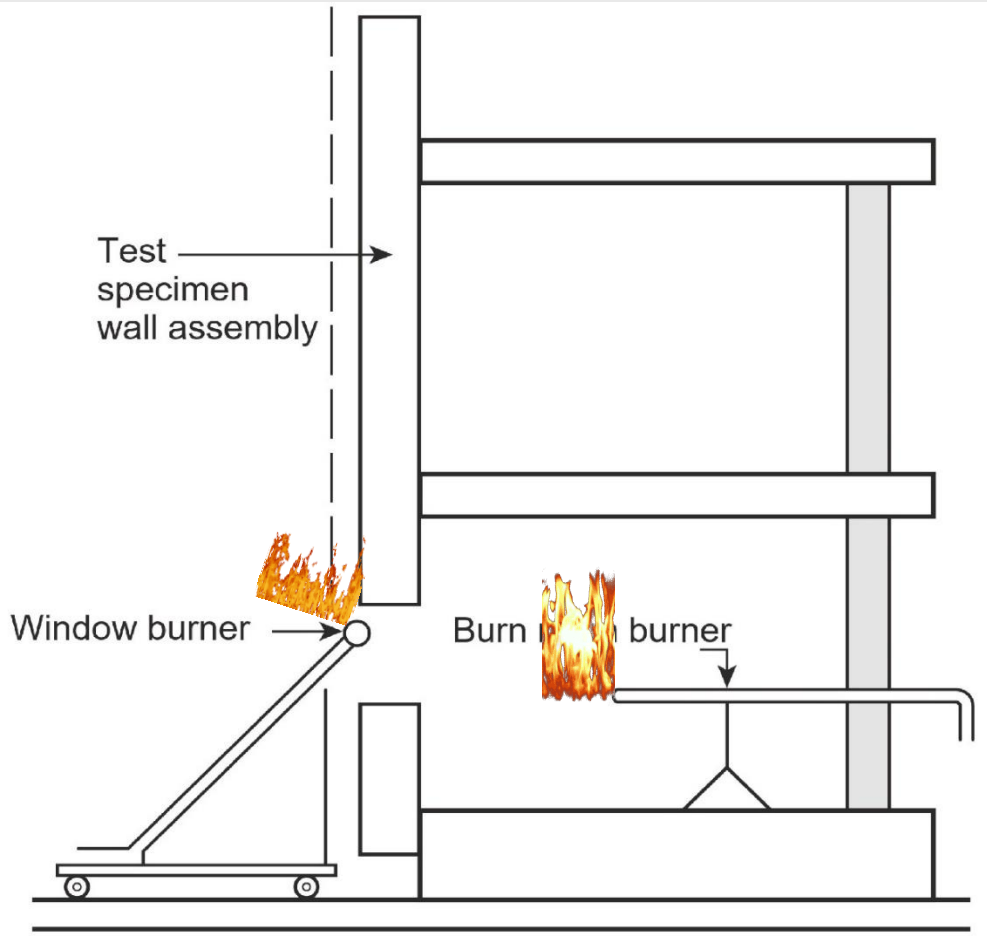
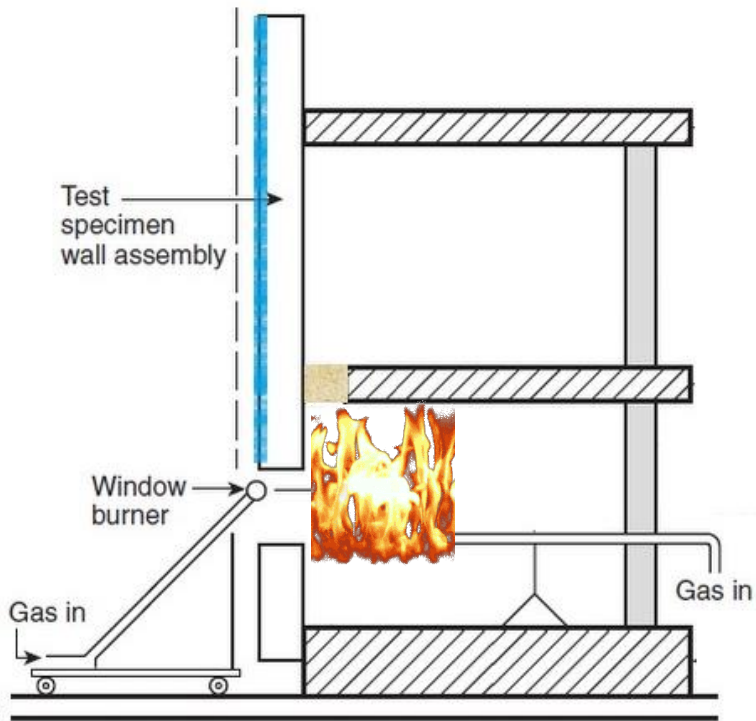


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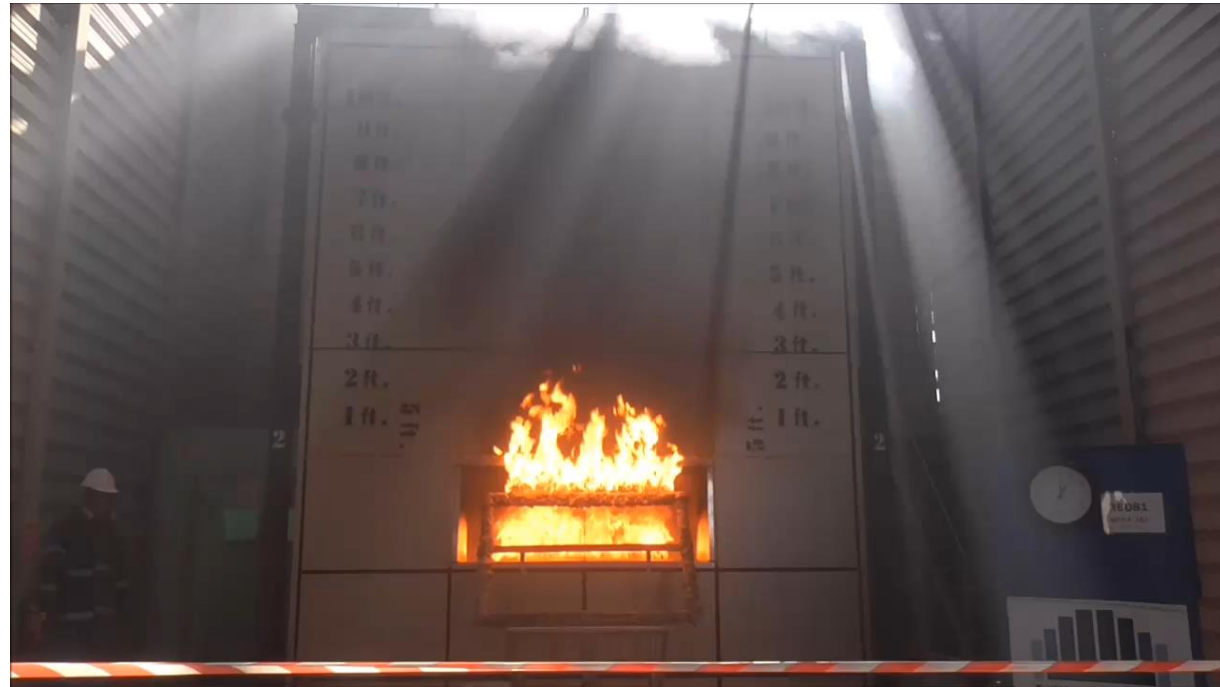


Intermediate Scale Multi-storey Test Apparatus or ISMA, used to conduct the NFPA 285 for **Cladding Systems** test and the ASTM E2307 test **Firestops**

What can go wrong

BS 8414 part 2

NFPA 285



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Inspections at Site

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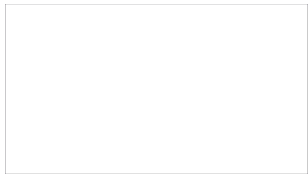
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Workmanship

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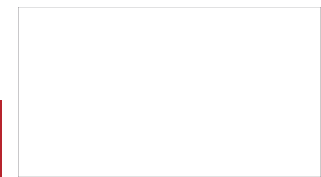
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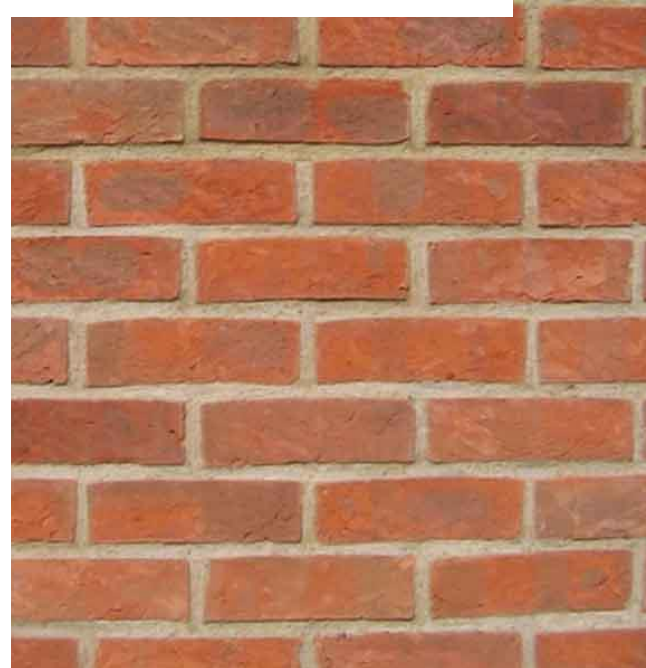


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Trust Tools

ISO
17020

Inspection Bodies



ISO
17025

Testing



ISO
17065

Certification

Certification
and Listing

ISO
17024

Bodies operating certification of persons

Discussions

