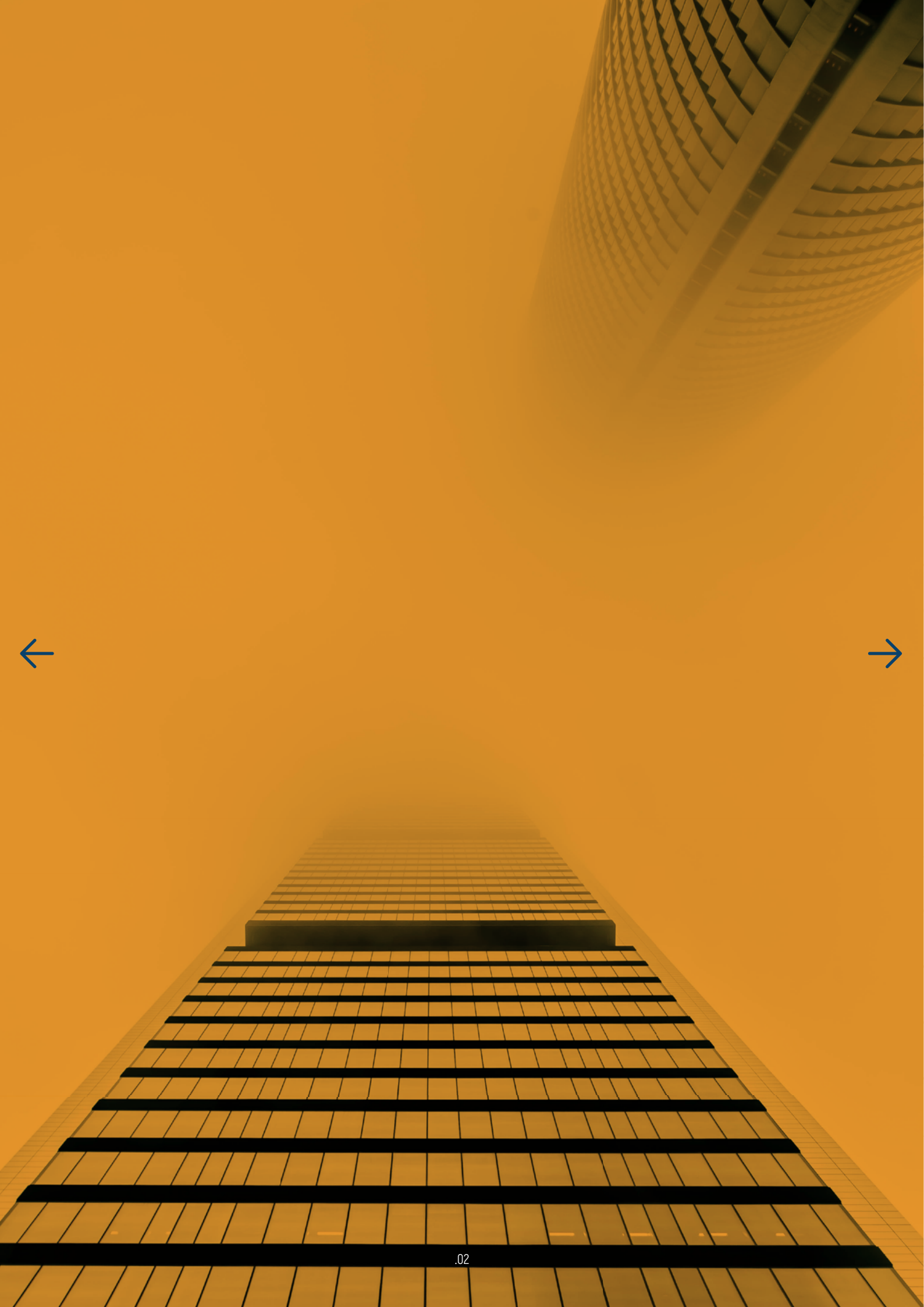
GUIDANCE FOR CONSULTANTS/ARCHITECTS

FACADE WEATHERPROOFING - FIRE



GUIDANCE FOR FACADE

CONSULTANTS/ARCHITECTS

FACADE WEATHERPROOFING - FIRE

BREATHER / AVCL SYSTEMS

BREATHER MEMBRANE SYSTEM

System Function

Waterproofing vapour permeable system.

System Location

It should be installed on top of the external insulation (cold side) protecting the entire facade composition. However and depending on the cladding brackets complexity (size/shape) it is acceptable that breather membrane systems be fixed on the top of the sheathing board. The weatherproofing design of the breather membrane systems should be done in detail and in project by project basis.

System Method of Installation

Fixing

Double-sided adhesive/sealant tape spaced maximum @500mm (placed vertically or horizontally). Membrane mechanical fixed shortly (1 metal plate per/m2).

Vertical Overlap 150mm

Horizontal Overlap 100mm

Perimeter sealing

Double-sided adhesive/sealant tape (thickness > 1,50mm) applied continuously on top of the weatherproofing EPDM membranes or any other substrate always allowing the interface movement (windows frame/sheathing board; parapet wall/roofing membrane; concrete/sheathing board, etc.).

Details

All the nails/screw perforations < 25mm dia. should be sealed with a patch 50x50mm of double-sided adhesive tape. The facade perforations with irregular shape and over 25mm should be studied in detail case by case. All the tapes, adhesives and sealants should be applied when it is not raining and the temperature is above 5◦C. Primer is required for temperatures below < 5◦C; Care should be taken on porous surfaces such as concrete.

AVCL (AIRTIGHT VAPOUR CONTROL LAYER) **SYSTEM**

System Function

Airtight vapour barrier membrane.

System Location

AVCL should be located on the internal face (warm side) of the back wall and fixed on top of the vertical Galvanized Steel SFS Studs. The weatherproofing design of the AVCL membrane systems should be done in detail and project by project basis.

System Method of Installation

Fixing

Double-sided adhesive/sealant tape spaced maximum @600mm (placed vertically and horizontally).
Membrane mechanical fix not required.

BREATHER & AVCL SYSTEM - FIRE PERFORMANCE

Breather and AVCL membrane systems are generally applied as facade liners (opaque areas) with severe impact on facade fire propagation – externally and internally. It should be specified noncombustibility or limited combustibility with minimum Class A2-s1, d0 on BS EN13501-1. Tapes, adhesives and sealants should be tested and certified as part of membrane system always replicating the end use.

Vertical Overlap 150mm

Horizontal Overlap 100mm

Perimeter sealing

Double side adhesive/sealant tape (thickness > 1,50mm) applied continuosly on the connections of ACVL membrane edges/end laps to concrete, aluminium or any other substrate allowing always the interface movement (AVCL/Windows frame; ACVL/Concrete Slab, etc.).

Details

All the nails/screw perforations < 25mm dia. should be sealed with a patch 50x50mm of double-sided adhesive tape. The facade perforations with irregular shape and above 25mm should be studied in detail case by case. All tapes, adhesives and sealants should be applied when it is not raining and the temperature is above 5º. Primer is required for temperatures below < 5º; Care should be taken on porous surfaces such as concrete.

BREATHER AND AVCL SYSTEMS COMMON FAULTS

- Membrane perforations not sealed;
- Lack of compatibility tests;
- Tapes, adhesives and sealants not allowing differential movements;
- Tapes, adhesives and sealant are not tested as a complete system;
- Lack of detailing;

BREATHER/ AVCL SYSTEM ACCESSORIES DESIGN

Application		BREATHER MEMBRANE SYSTEM	AVCL MEMBRANE SYSTEM
Overlaps		●	●
Fixing	Gypsum Sheathing Board, Calcium Silicate Boards, Cement Basis or similar	●	
	Concrete or similar porous surfaces	●	●
	Galvanized Studs or similar metallic smooth surface		●
	Aluminium Foil (insulation)	●	●
Perimeter Sealing	Concrete or similar porous surfaces	●	●
	Aluminium	●	●
	EPDM	●	●
	Roofing Membrane	●	
	Gas Membrane	●	
Nail/Screw Perforations Sealing		●	●
Breather Membrane System			●
AVCL Membrane System		●	
EPDM Membrane System		●	●

✓ Fully Envelope System Tested & All Compatibilities Checked

- ● It is necessary an accessory tested and developed for that application.
- ● It is necessary an accessory with elongation and with thickness above 1.0 mm.

PRODUCT AVAILABILITY

EFFISUS
Excellence in Weatherproofing

PRODUCT AVAILABILITY

BREATHER / AVCL SYSTEMS (FIRE & WEATHERPROOFING DESIGN)

View on the website

View on the website

A2 FIRE ENVELOPE SYSTEM

- Effisus Breather FR membrane system
- Effisus Vapour FR membrane system
- Full range of accessories

EFFISUS BREATHER FR SYSTEM

Reaction to fire	System	Class A2-s1,d0 (EN13501-1)
	Membrane	Class A1 (EN 13501-1)
Water vapour transmission properties (sd-value) (m)		0.013 (EN ISO 12572)
Tensile Strength MD/CD (N/50mm)		2015 / 1725 (EN 12311-1)
Nail tear resistance MD/CD (N)		328/255 (EN 12310-1)

a) The fire classification was obtained with Effisus accessories (double-sided adhesive tapes) tested as a system.

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 21/5951

LABC Assured

CLASS A2-s1, d0 System
- Membrane Class A1
- Fastening Accessories
- Overlaps Accessories
- Penetrations

Tested & Approved

EFFISUS
THE ONE AND ONLY
A1 FIRE RATED MEMBRANES
A2 FIRE RATED SYSTEMS
SINCE 2011
UNBEATABLE VALUE

EFFISUS VAPOUR FR SYSTEM

Reaction to fire	System	Class A2-s1,d0 (EN 13501-1)
	Membrane	Class A1 (EN 13501-1)
Vapour resistance (MNs/g) b)		> 7500 (EN 1931)
Resistance to air penetration (m3/(h x m2 x 50 Pa)		0,002 (EN 12114)
Water penetration		W1, passed (EN 1928)
Tensile Strength MD/CD (N/50mm)		max: 890; max: 861 (EN 12311-1)

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 21/5951

LABC Assured

CLASS A2-s1, d0 System
- Membrane Class A1
- Fastening Accessories
- Overlaps Accessories
- Penetrations

Tested & Approved

EFFISUS THE ONE AND ONLY
A1 FIRE RATED MEMBRANES
A2 FIRE RATED SYSTEMS
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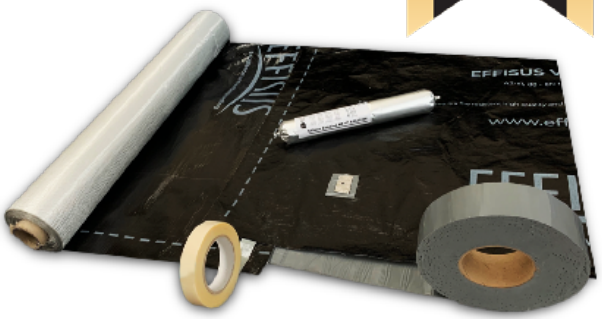

a) The fire classification was obtained with Effisus accessories (double-sided adhesive tapes and paste adhesive) tested as a system.

b) Vapour resistance test result considering the vapour permeability of still air, in UK, 0.2 gm/MNS.

EFFISUS ACCESSORIES SYSTEM

X3 SYSTEM POSSIBILITIES

Effisus 2Bond DS Tape

Function
Perimeter sealing;
Sealing nail/screw perforations

Substrates compatibility
Concrete or similar porous surfaces; Aluminum Roofing membrane; Gas membrane

Special notes
Accessory with elongation and movements

Effisus 2Adjoin DF Tape

Function
Fixing and overlaps membrane

Substrates compatibility
Galvanized Studs or similar metallic smooth surface and Gypsum Sheathing Board, Calcium Silicate Boards, Cement Basis or similar

Effisus Bonding KF+P paste adhesive

Function
Perimeter sealing; Fixing and sealing nail/screw perforations

Substrates compatibility
Concrete or similar porous surfaces; Aluminum

TECHNICAL SUPPORT

- Project by project approach
- Product specifications
- Weatherproofing design
- Technical Submission
- Dedicated CPD's
- Compatibility assessment
- Site support
- Project method statement

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