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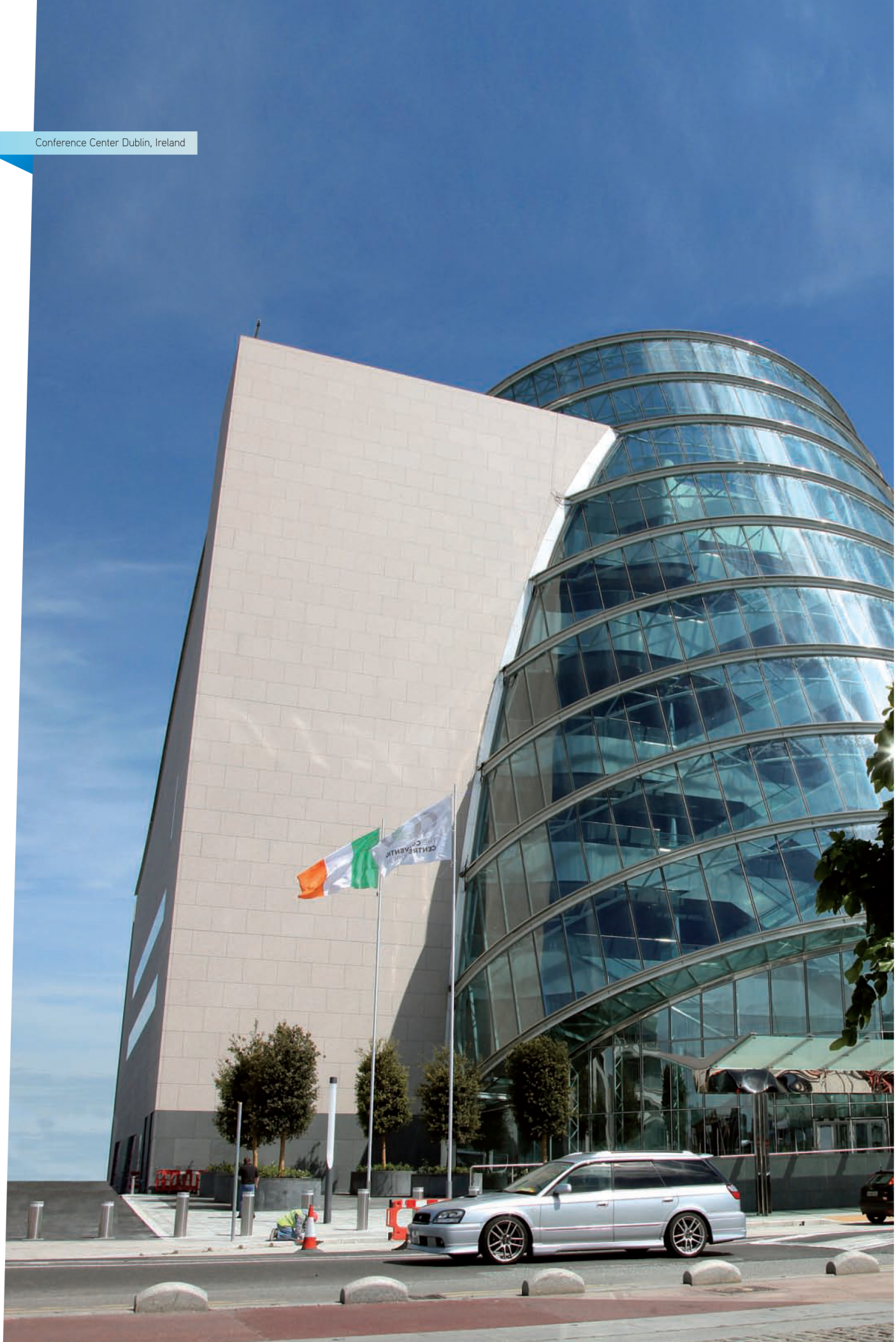
JANUARY 2012	

eclad

the future of natural stone cladding



Conference Center Dublin, Ireland

INNOVATION

eclad systems are designed to meet and surpass the most stringent demands of the natural stone cladding sector

The origins of Eclad Limited began in the masonry business specialising in both handset and mechanical fixing of natural stone. With this background the company developed a worldwide knowledge in sourcing granites, marbles, limestones and sandstones. This knowledge together with fabricating expertise and teams of masonry craftsmen quickly established the company as leaders in their field.

One of the most important developments in Natural Stone Cladding during the last decade has seen the widespread introduction of carrying systems in lieu of more traditional methods. Some of the more innovative designs offer faster more economic installation with greater accuracy whilst retaining architectural flexibility.

Eclad Limited, an early pioneer of these progressive systems, realised that in order to meet the requirements of a fast changing construction industry and to allow more architectural freedom of expression a new approach to cladding was required. As a result of this Eclad Limited has taken the highly successful original design developed during the late 1990's and created the new Eclad systems that offer even more benefits and higher performance.

These new systems often allow the use of thinner stone panels for greater economy, lighter construction and improved appearance. Eclad systems have already been successfully installed on projects large and small in Ireland and across Europe and the United States.

Harrah's Ak Chin Hotel Casino, Phoenix, AZ, USA

SYSTEMS

unique eclad designs offer faster, accurate and more economic solutions

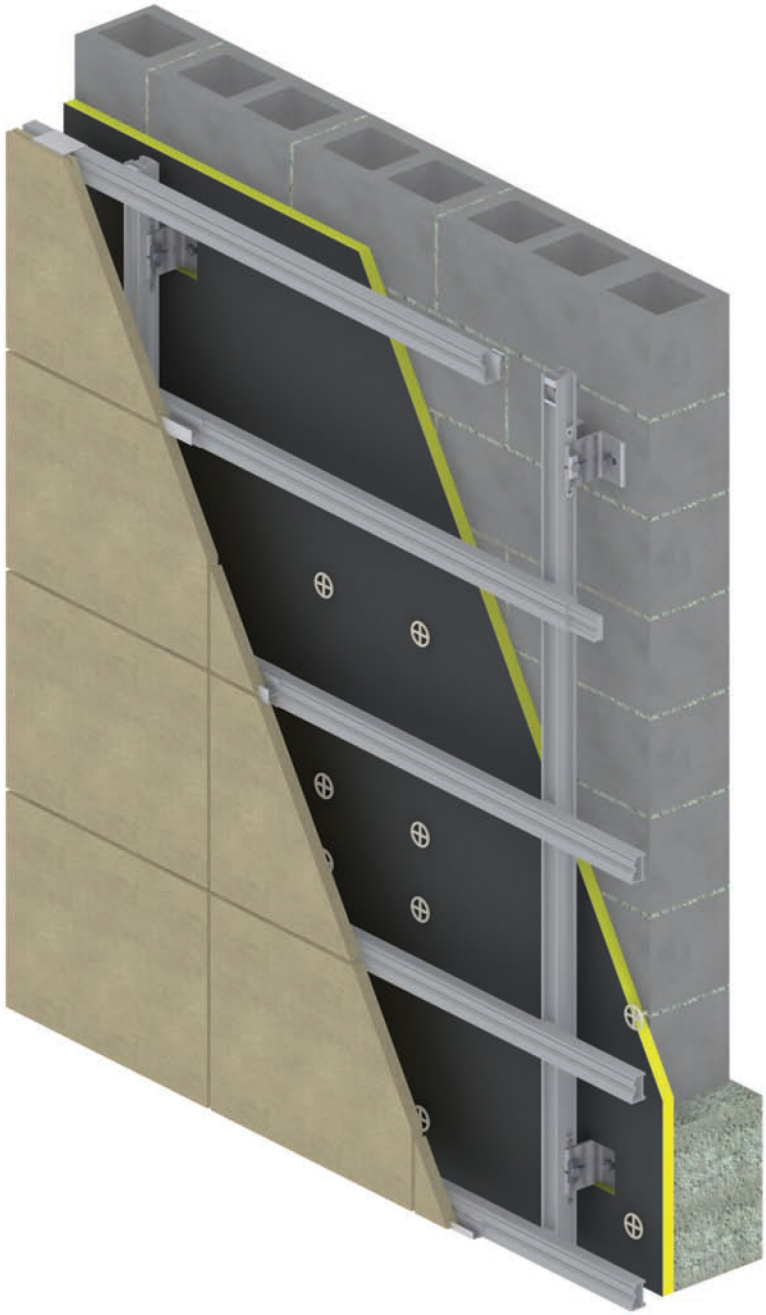
The Eclad systems are high performance modular aluminium cladding systems which have been developed to meet a variety of construction applications economically while delivering high speed accurate installation. Eclad systems are currently available in 3 versions for both stone and terracotta:

- ESV / ETV: a light veneer system which facilitates cladding to a back-up structure.
- ESW / ETW: totally independent high performance full wall cladding system. Designed to span from floor to floor.
- ESD /ETD: a horizontal system designed for setting stone to block or stud walls.

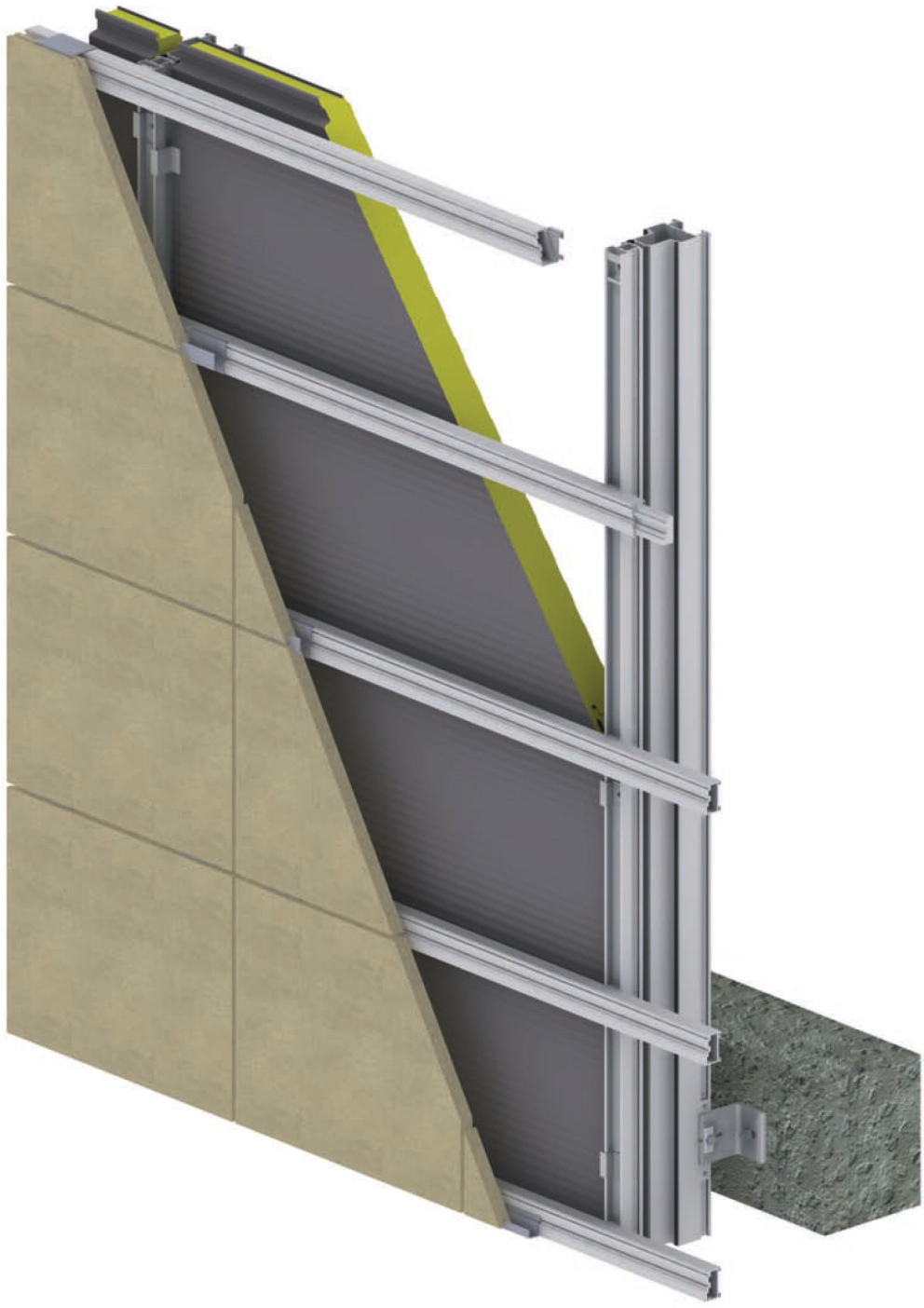
The unique Eclad design offers faster accurate and more economic design solutions coupled to installation benefits providing fast track program security.

Additional Services

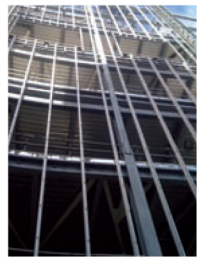
- Offers a full design service back-up
- Worldwide expertise in all aspects of natural stone
- For further information please visit our web site www.eclad.ie

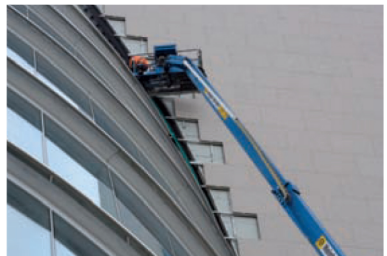


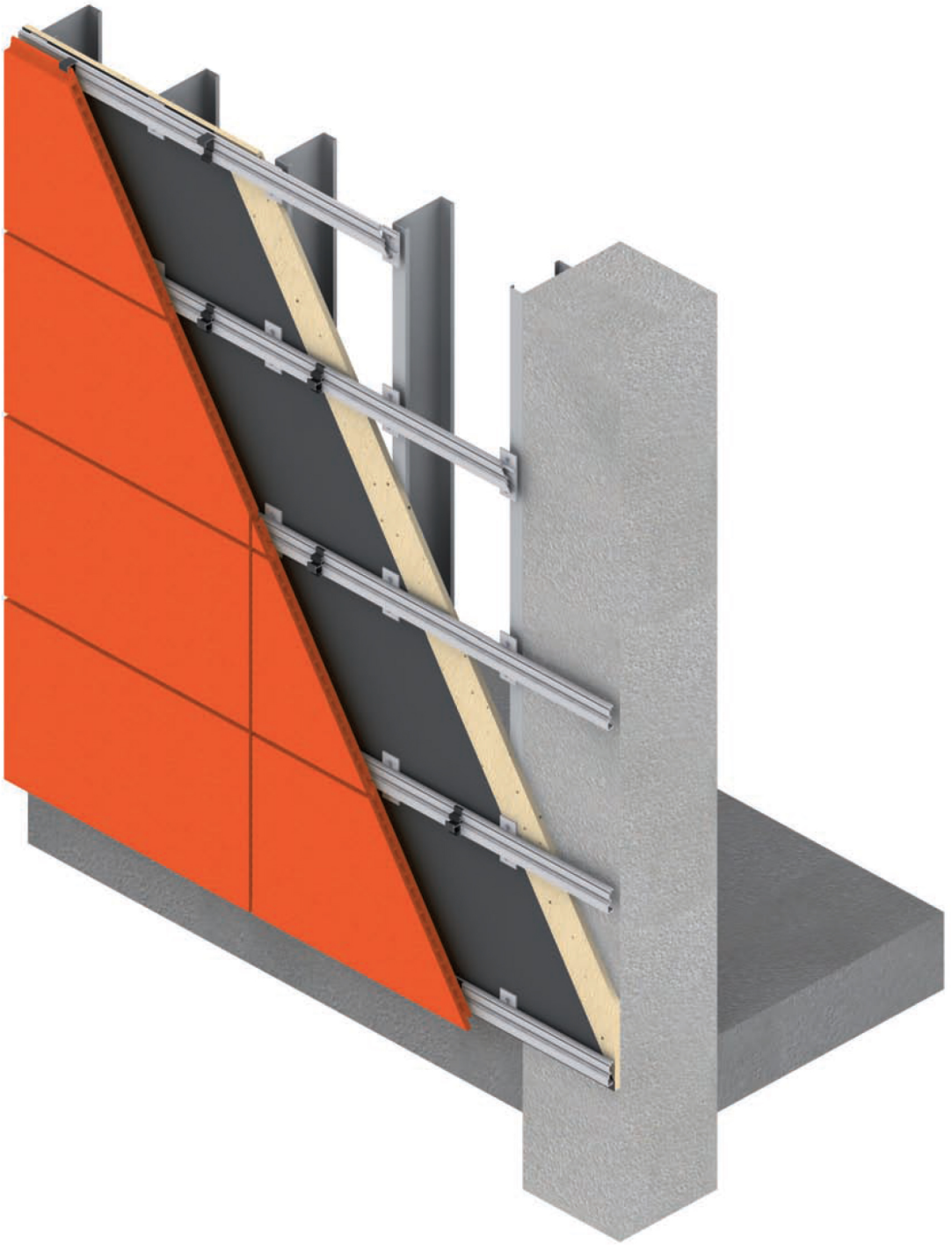
ESV system



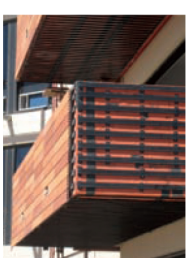
ESW system

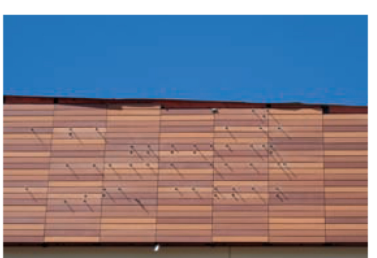


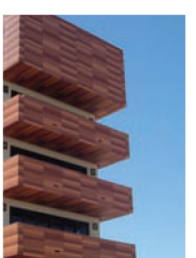




ETD system







HIGHLIGHTS

aluminium grid systems that offer architects flexible design solutions

DESIGN HIGHLIGHTS

Flexible design solutions with vertical mullions independent of stone joints.

Available both as a pressure equalised open joint or fully sealed system.

Can incorporate vision areas and opening lights with a full range of ancillaries.

Meets the severest performance criteria including thermal and acoustic regulations.

Caters for a wide range of stone dimensions and thickness.

Unique connections allows horizontal expansion, useful on steel structures and in seismic regions.

Aluminium systems now feature extensively in the cladding sector due to their ease of recycling.

INSTALLATION HIGHLIGHTS

Faster, more flexible and economic installation to meet modern fast track programmes.

Eclad ESW system achieves weather tightness prior to the installation of stone panels removing it from the critical path and ensuring pristine appearance.

Stone installation is non-sequential allowing cladding to follow contractor's requirements.

Panels can be replaced individually during construction or subsequently.

3-way anchor system caters for building tolerance and movement.

Putney Square, London, UK

eclad systems meet the most severe performance requirements worldwide

The Eclad system has been independently tested by a fully accredited UKAS testing laboratory to the most severe performance categories. Results show that the system:

1. In the U.K. meets the most severe performance requirements set by The Centre for Window & Cladding Technology (CWCT).

2. In Europe has achieved 'CE' marking as defined by Federation of European Window & Curtain Walling Manufacturers Association (FAECF) demonstrating compliance with all relevant standards throughout the European Member States.

3. In the United States meets the performance levels required by the American Architectural Manufacturers Association (AAMA) and the standards of ASTM International.

WINTECH
BUILDING ENVELOPE TESTING

CWCT – ASTM COMPARISON

Test Description	CWCT Requirements	Test Result Report PSR.R1761.06.1194 Dated 12th June 2007	CWCT – As Tested	ASTM/AAMA Requirement	Comments
Air Leakage - Infiltration	1.50 $m^3/hr/m^2$	0.10 $m^3/hr/m^2$	600 Pa	E283-04 Maximum pressure of 300 Pa (6.24 psf) Maximum allowable leakage of 0.06 cfm/ft^2 or 1.08 $m^3/hr/m^2$ [22]	CWCT test exceeded the ASTM/AAMA Standard
Air Leakage – Exfiltration	No Criteria Given – Information Only	0.01 $m^3/hr/m^2$	100 Pa	Optional test if required	Information Only
Water Penetration - Static	No Water Allowed	No Water Observed	600 Pa	E331-00 Minimum pressure of 300 Pa (6.24 psf) and a maximum pressure of 720 Pa (15psf) ASTM – No water leakage AAMA – Up to 15 ml of water in a 15 min test period on top of an interior stop or stool integral with the system shall not be considered water leakage	The CWCT test achieved the maximum pressure of 600 Pa (12.48psf) as required but there is no test data for projects above this figure
Wind Resistance – Serviceability	3272 mm Allowable 15.91 mm 1180 mm Allowable 6.74 mm	Passed	2400 Pa	E330-02 Project Spec Requirements Apply	CWCT test exceeded the ASTM/AAMA Standard
Repeat Air Leakage - Infiltration	The Results shall not increase by more than 0.3 m3/hr/m2 above those recorded in the 1st test.	0.13 $m^3/hr/m^2$	600 Pa	Maximum allowable leakage of 0.06 cfm/ft^2 or 1.08 $m^3/hr/m^2$ [22]	CWCT test exceeded the ASTM/AAMA Standard
Repeat Air Leakage - Exfiltration	No Criteria Given – Information Only	0.03 $m^3/hr/m^2$	100 Pa	Optional test if required	Information Only
Repeat - Water Penetration - Static	No Water Allowed	No Water Observed	600 Pa	As per first water	As per first water
Water Penetration – Dynamic Aero Engine	No Water Allowed	No Water Observed	600 Pa	AAMA 501.1 8 to 15 psf No Water Leakage Allowed	Met the requirements
Water Penetration – Dynamic Fan	No Water Allowed	No Water Observed	900 Pa – 300 Pa	ASTM E1105 8 to 15 psf No Water Leakage Allowed	CWCT test exceeded the ASTM/AAMA Standard
Water Penetration – Hose	No Water Allowed (During or within 30 minutes after the test)	No Water Observed	220 +/- 20 kPa	AAMA 501.02-09 No Water Leakage Allowed During Test	CWCT test exceeded the AAMA Standard
Wind Resistance – Safety	3272 mm Allowable 6.54 mm 1180 mm Allowable 2.36 mm	Passed	3600 Pa	E330-02 Project Spec Requirements Apply	CWCT test exceeded the AAMA Standard
Impact - Safety	Various impacts were conducted at various drop heights on different stone panels.	All panels passed except one which failed due to cracking around the fixing.	Classes 1 to 4	N/A	No ASTM Standard

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UKAS TESTING 2223

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