

STRETCHING THE BOUNDARIES





EUROCLAD



LINEAR FAÇADE SYSTEMS



CONTENTS

Introduction

3

Integrated design and production process

4

LINEAR 1

6

Euroclad Façades pass BRE testing

8

LINEAR 3

10

Bespoke fabrications

12

Case Study – Millennium Dome O₂ Arena

14

Case Study – Manchester Civil Justice Centre

16





INTRODUCTION

Our LINEAR Series Façade systems allow the building designers and contractors complete freedom of expression using both standard items and bespoke details.

Indulge in lateral thinking and design with the visual freedom, that only Euroclad's LINEAR series metal façade systems can engender. Utilise the design friendly attributes and the range of Euroclad's choice of metals, finishes and composite materials. Benefit from sophisticated computer controlled manufacturing technology to fully exploit the extraordinary contemporary visual appeal, pure colour uniformity and definitive flatness of these systems. Be confident that the choice of materials and finishes allows complete design freedom and that the systems meet all European regulatory requirements. Eurofaçade's high technology provenance means fast, accurate, best value products and service.

With LINEAR, when you design something great, we'll make it greater.





Receipt of enquiry



Manufacturing drawings created



3D drawings transferred directly to production machinery



Expert staff monitor the automated cutting and routing machinery



Panels are hand finished and quality inspected

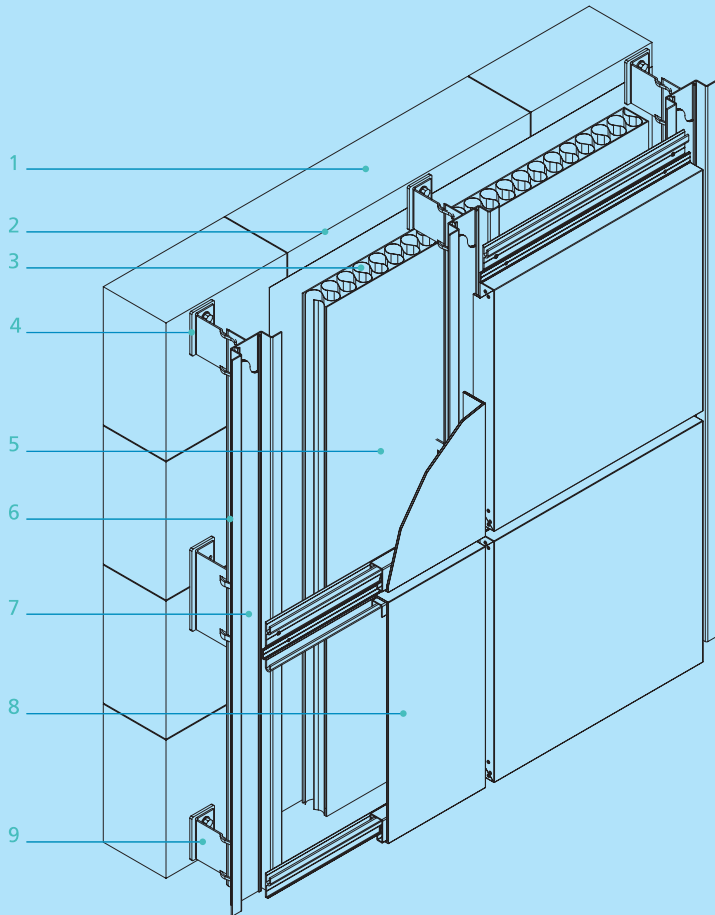
INTEGRATED DESIGN AND PRODUCTION PROCESS

Euroclad Façades provide comprehensive technical, advisory, design and manufacturing services. With involvement from the outset of a project, by working closely with the architect and cladding contractor, we can help formulate an economical design solution to meet the specific project brief.

To ensure conformance with all current UK building standards our products have been extensively modelled and physically tested. When we supply your project you can rest assured in the knowledge that we will ensure that the most suitable façade systems are provided and that the total façade system design conforms to the aesthetic, structural, thermal and acoustic requirements of the project.

With our involvement in a project from the outset we are able to issue both material and complete system warranties for the full economic life of the building being designed.





DESIGN

The key attributes of this system are build speed and convenience. The system is made up of a series of panels that are hung from a support frame. LINEAR 1's innovative design means that the speed and ease of installation is unrivalled. The benefits of the system on-site are numerous. The support structure is supplied along with the façade panels. All panels can be independently removed and replaced without disrupting the rest of the façade therefore if an individual panel is damaged during the build, or even years after, that solitary panel can be easily replaced.

COMPOSITION

LINEAR 1 panels can be supplied in any ACM material however Euroclad would recommend the use of one of the increasingly popular ALPOLIC/fr composite materials from Mitsubishi Chemical Functional Products, Inc.

Standard panels can be supplied in any module size up to 1475mm x 6000mm. Long panels will self curve down to 15m radii. The vertical and horizontal joints of this system are fixed at 20mm.

- | | |
|-------------------------------|--|
| 1 Existing wall | 6 Aluminium vertical track |
| 2 Breather membrane | 7 LINEAR 1 infill strip |
| 3 Rockwool Duoslab insulation | 8 LINEAR 1 rainscreen pane |
| 4 Thermal break | 9 Aluminium adjustable cleat to suit cladding zone |
| 5 Air gap | |

LINEAR 1 Pressure equalising rainscreen façade system





EUROCLAD

Euroclad's Façades Division has become the first to be awarded certification from the Building Research Establishment (BRE) for their LINEAR 1 rainscreen façade system tested as an integral part of a complete wall solution.

The wall assembly tested represents typical current residential and industrial sector construction practice which has an increasingly strong reliance on the efficiencies made possible by adapting modularised off site construction methods. Unlike other assessments, the BRE analysed the whole façade system to comply with NHBC, CWCT and all current building regulation requirements pertaining to such systems, instead of testing individual components in isolation.

The test assembly consisted of a floor to ceiling spanning Metsec light gauge steel frame braced and clad on its outside face with cementious board. Airtightness is achieved by utilising a vapour barrier sandwiched between the insulation and the cementious board. Between the outside face of the insulation and the indoor face of the external panels there is an air gap of 87mm. The assembly also consisted of a typical window pod. This was included as in practice it is always the interface with other elements of the building envelope that are the fist to fail. By including window head jamb and sill interface details Euroclad could be confident that the worst case scenario was tested.

The rigorous analysis, performed under secure conditions, tested the total LINEAR 1 / Metsec façade system for air permeability to fulfil BS EN 12153, water tightness to meet BS EN 12155 and wind resistance to comply with BS EN 12179. The LINEAR 1 / Metsec wall system passed all the stringent tests with flying colours.

Euroclad Façade's LINEAR 1 system was also subject to a series of soft and hard body impacts in order to demonstrate an ability to comply with BS8200. LINEAR 1 performed extremely well when subject to soft and hard body impacts with regards to retention of performance.

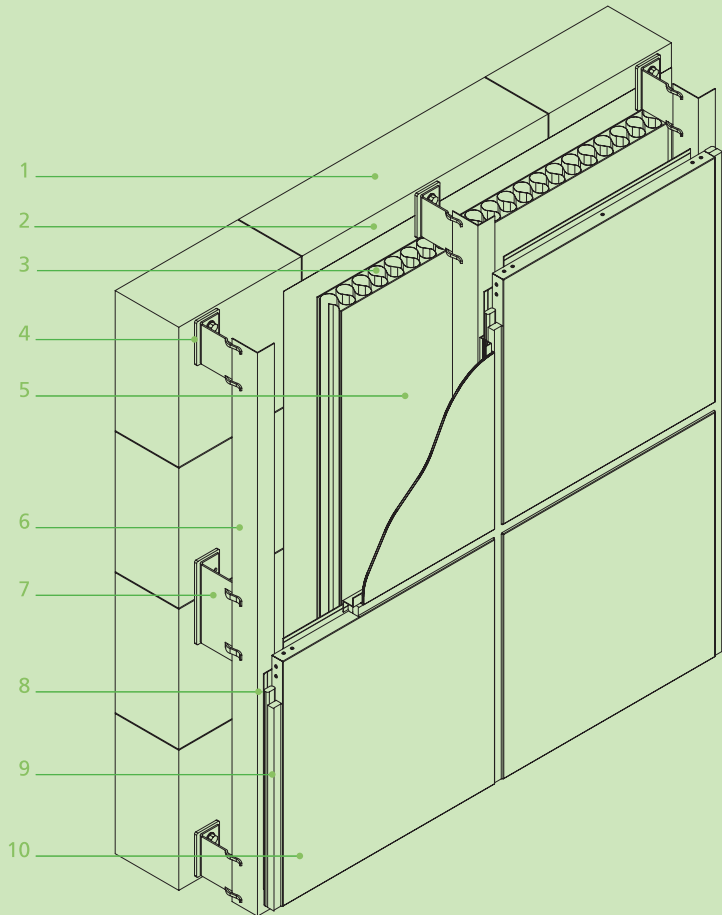
The impact was applied to an array of points on the exterior face of the rainscreen up to 1.5m from 'ground' level. The performance of the façade was not compromised and the system passed the testing. The same testing was applied with regards to safety to persons. The façade system passed and demonstrated it would not cause serious injury to people inside or outside the building.

The test reports are available via the Euroclad Façades web site www.eurofacades.com

Euroclad Façades' recent certification award is just one triumph amongst an on-going aim to offer customers entire certificated façade systems.

FAÇADES PASS BRE TESTING





DESIGN

The LINEAR 3 system offers the ultimate in design creativity. The basis of the cassette panel system is ultimate design flexibility. This system is made up of a series of cassette panels that are each positively fixed to the vertical support rails. Installation is straight forward and the system can be installed with joint sizes of 15mm or 20mm in wet and dry jointed variations. As with all our systems the support structure is supplied along with the rainscreen.

COMPOSITION

LINEAR 3 panels can be supplied in a range of materials such as stainless steel, copper, zinc, mill finish, pre or post-coated 2mm or 3mm thick solid aluminium or in any manufacturers ACM material. We would, however, recommend the use of one of the increasingly popular ALPOLIC/fr composite materials from Mitsubishi Chemical Functional Products, Inc. Further finishes such as anodised and textured metal choices are also available through consultation.

LINEAR 3 panels can be supplied in any module size up to 1475mm x 6000mm. Panels can be curved down to 100mm internal radii in plan or elevation, raked, tapered or as a combination of all the above.

- | | |
|-------------------------------|--|
| 1 Existing wall | 7 Aluminium adjustable cleat to suit cladding zone |
| 2 Breather membrane | 8 Polyethylene packing strip |
| 3 Rockwool Duoslab insulation | 9 Sealing material |
| 4 Thermal break | 10 LINEAR 3 rainscreen panel |
| 5 Air gap | |
| 6 Aluminium vertical track | |

LINEAR 3 Rainscreen cassette panel system



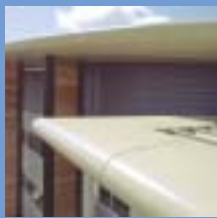


EUROCLAD

Bespoke systems in any metal or ACM are available though consultation. The standard LINEAR products cover many requirements but there will always be a need to provide bespoke details or features. Euroclad Facades take pride in the ability to manufacture almost anything that can be drawn. When unique lettering cut from metal was needed for the seminal Wales Millennium Centre, Euroclad demonstrated the flexibility in design, manufacture and supply needed to finish such a high profile building.

BULLNOSES, SOFFITS, FASCIAS

Combined with the façade panels these systems offer a complete solution to complete all roof/wall interfaces. Bullnoses in ALPOLIC/fr, are available with constant or complex elliptical radii.



BESPOKE FABRICATIONS

CORNER/TRANSITION

Highly flexible flashings offer seamless marriage of verge to eaves details, interfacing directly with façade, bullnose and soffit systems.

COLUMN CASINGS

Available as round, ellipsoid or square casings for clean details in ALPOLIC/fr.





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Bespoke ALPOLIC/fr bullnose detailing from Euroclad is part of the transformation at the O₂ in London, where a large arena is under construction. Anschutz Entertainment Group is the company developing The O₂ (formerly the Millennium Dome) and its centrepiece, The O₂ Arena, at a total project cost of £500 million.

The O₂ Arena venue will contain a world-class exhibition space, a music club, an 11-screen cinema, an ice-rink and a vibrant 'entertainment district' – featuring a variety of restaurants, bars and leisure facilities. With seating capacity of 23,000, The O₂ Arena will be the largest multipurpose arena in London, when it's complete in 2007. Anschutz Entertainment Group hopes to host at least 150 world-class music, entertainment and sport events at The O₂ in its first year of opening. The O₂ will also be a key venue of the 2012 Olympics, as it will host the gymnastics and basketball events. Additionally, in 2009 it will host the World Gymnastics Championships.

Designed by HOK Sport and constructed by Sir Robert McAlpine Ltd. The entire perimeter of the O₂ Arena is defined by an elegantly curving bullnose feature detail that describes a complex geometrical form. Its design was further complicated by the proposal to attach the entire bullnose substructure to the primary steel work before it was lifted off the temporary supports on which it had been assembled. It was predicted that the primary steelwork would deflect significantly during the lifting process and this movement needed to be accounted for in the design.

Euroclad took on the contract for the bullnose feature on a design and supply basis appointing Buro Happold Façades to assist with the design of the bullnose feature cladding and associated substructure necessary to support it. Buro Happold also assisted in developing a strategy for the installation of the components that combine to form the bullnose feature by the fixing contractor WWR.

The design team consisted of a cross functional group of experienced and dedicated industry professionals working closely together to yield the optimum design solution within the tight budget and timescale constraints. The feature detail was ultimately realised by Euroclad manufacturing 95 number individual 5m assemblies each formed from 73 number cold formed galvanised sheet steel components and 72 number ALPOLIC/fr and aluminium skin components.

In total there were therefore 13,775 individual components that needed to be manufactured and assembled. It was possible to supply the design consisting of this incredible level of variation on time and within budget by taking advantage of Euroclad Façade's extensive experience of Autodesk's INVENTOR CAD software in conjunction with Panel BUILDER's CAM software and Euroclad Façade's 2 number 6m x 2m AXYZ CNC routing machines.

Made of ALPOLIC/fr, an aluminium composite material, Euroclad's bullnose feature contains a non-combustible mineral-filled core, which meets all UK and European fire code requirements without any restrictions. ALPOLIC/fr benefits from an excellent level of colour consistency and flatness, which is achieved by a continuous laminating process. The material is lightweight and rigid, but also impact resistant due to its unique composite construction.

CASE STUDY Euroclad awarded the O₂ Arena project





EUROCLAD

Euroclad Facades have recently supplied both unified and rainscreen panels manufactured from ALPOLIC/fr for the prominent new Civil Justice Centre in Manchester. In a contract worth more than £400,000, Euroclad's Façades Division has manufactured nearly 8,000 panels for Josef Gartner to complete the stunning design.

At a cost of £160m, the new court complex will house 47 courtrooms, 4 tribunal courts, 75 consultation rooms, as well as office and administration space. Designed by Denton Corker Marshall, the building will be a striking addition to the cityscape. The façade comprises dark grey metallic panels of ALPOLIC/fr composite material as well as other types of panel. Over the space of three months, Euroclad ALPOLIC/fr panels were sent to Germany to form prefabricated 6m x 2.5m entire unified wall sections to be installed complete on site.

Nick Jenkins, Operations Manager for Euroclad Façades, comments:

"The award of this contract is the culmination of 18 months of preparatory work, where our product and manufacturing capabilities have all been scrutinised to ensure consistent quality and on-time delivery".

This contract comes as Euroclad's Façade Division is expanding into a larger facility with additional machinery, in order to fulfil an increasing growth in demand.

The division manufactures specialist façade systems from ALPOLIC/fr composite aluminium material, and prides itself on being able to resolve the most challenging designs.

CASE STUDY Manchester Civil Justice Centre



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