Building new solutions.

Lindner undertakes major projects worldwide in all areas of interior fit-out, insulation technology, industrial services and building facades. From pre-planning through to project completion Lindner is your partner of choice.

The Company’s extensive manufacturing capability enables quality to be strictly maintained whilst allowing maximum flexibility to meet individual project requirements.

Environmental considerations are fundamental to all Lindner’s business principles.

Through partnerships with clients Lindner turns concepts into reality.

Choosing Lindner you have:

**Lindner Concepts:**
Tailored solutions specifically geared to satisfy individual project requirements

**Lindner Products:**
Quality materials and systems to the very highest industry standards

**Lindner Service:**
Comprehensive project management services

Lindner CW65 facade system – a revolutionary new concept for sustainable curtain walls.

CW65 benefits at a glance
- Sustainable designs and materials
- Highly transparent facade with slim sight-lines
- Excellent weather, acoustic and thermal performance
- Facade tested to CWCT sequence B requirements
- Integrated SSG and capped aesthetics in a single system
- Innovative glazing retention method
- Cost effective due to standardised components
- High quality factory prefabricated elements
- Short lead-in times for faster construction
- Rapid site installation
- Easy recycling of materials
Lindner CW65 facade system is the new standard.

Lindner CW65 is conceived as a standardised system enabling rapid delivery of standard components. A basic range of element configurations is available to provide cost effective cladding solutions for a wide range of buildings where normally the cost of unitised or bespoke curtain wall systems would be prohibitive.

**Standard facade element types**

Standard element configurations include:
- Fixed glazing
- Opening vents and doors
- Sliding doors
- Cladding panels with glass, metal, GRC (glass reinforced concrete) or stone spandrels
Lindner CW65 facade system is highly flexible.

The basic CW65 elements can be customised to meet bespoke architectural requirements on more complex projects. Options include:

- Sliding and side hung doors
- Wide range of spandrel cladding materials such as GRC, terracotta, zinc and stone
- External shading devices and fins
- Special corner elements
- Opening windows
- Bolt-on and inset balconies
- Balustrades and Juliette style balconies
- Larger element dimensions
- Integration of cleaning cradle restraints
- Special brackets and penetrations for signage, CCTV, services and risers
- Bespoke architectural features
- Integrated lighting
- Internal blinds and blind boxes
- Louvers and ventilators
Lindner CW65 facade system is unique.

Lindner have developed and patented this new and revolutionary facade system to meet the markets demands for an economical, high quality, unitised facade system that offers maximum transparency and high levels of environmental performance.

The concept for the system is a radical departure from the traditional designs yet is both simple and highly effective.

Previously the architect had to choose between structural silicone glazed systems, where the glazing unit is bonded to the framing members, or a capped system where glazing beads and gaskets retain the glazing units in a rolled-in thermally broken system.

CW65 can offer the benefits and aesthetics of both of these types of facade within a single system. Specially developed mechanical retention devices hold the glazing units in position.

**SSG System:**
The silicone glazed look-a-like system uses special stainless steel clips that engage in a groove formed in the secondary seal of the glazing unit to mechanically retain the glass, and locks into the mullion and transom profiles.

**Capped System:**
The capped version has an innovative polymeric thermal break that engages into the mullion and transom profiles, and retains the clip on glazing beads used to mechanically restrain the glazing units.

This allows the mullions, transoms, gaskets and many other components to be common to both versions, thus providing freedom for the architect and economy for the client. This is achieved in a framing system that has sight lines of only 65 mm.
Lindner CW65 – a new concept.

System concepts:

SSG look-a-like System

- Engagement into framing profile
- Internal gasket
- Stainless steel clip
- Groove in edge seal of Double Glazed Unit
- Double Glazed Unit

Capped System

- Engagement into framing profile
- Internal gasket
- Thermal break
- Double Glazed Unit
- Glazing bead
- External gasket
Typical Sections

Slim sight line profiles:

SSG version – horizontal section at element joint

Capped version – horizontal section at element joint

65 mm sight line
Integrated opening windows:

Integrated opening vents SSG version – horizontal section at element joint

Integrated opening vents capped version – horizontal section at element joint
SSG look-a-like System

SSG element – Double glazed vision element

SSG element – Double glazed vent element
Typical Technical Details

Metal panel – Insulation spandrel element

Capped element – Double glazed vision element
Typical Technical Details

Capped element – Double glazed vent element

Capped element – Single glazed spandrel element
Options

Terracotta, GRC or insulated metal panel rainscreen
Lindner CW65 facade system is thermally efficient.

Both the SSG and the capped versions of CW65 offer excellent thermal performance and resistance to condensation.

The condensation analysis is run with an external temperature of -5 °C and an internal temperature of +20 °C. The system is used with the CWCT guidance of BS 6229.

Shown here for: Residential
Integrated sliding door (tested system)

SGG element – Sliding door

Thermally efficient for residential projects
Option: integrated sliding doors.

Level threshold through sliding door to balcony
Option: pre-glazed bolt-on balcony units.

GRC panels supported on undercut anchors
# Features and Benefits

## Summary

<table>
<thead>
<tr>
<th>Lindner CW65 Standard Elements</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard element size up to</td>
<td>1,500 x 4,100 mm</td>
</tr>
<tr>
<td>Standard system depth</td>
<td>200 mm</td>
</tr>
<tr>
<td>Sight lines</td>
<td>65 mm</td>
</tr>
<tr>
<td>Glazing unit thickness up to</td>
<td>37 mm</td>
</tr>
<tr>
<td>Thermal break</td>
<td>yes</td>
</tr>
<tr>
<td>Gaskets in EPDM</td>
<td>3 lines of defence</td>
</tr>
<tr>
<td>Design wind loads</td>
<td></td>
</tr>
<tr>
<td>- Standard system</td>
<td>1,600 Pa</td>
</tr>
<tr>
<td>- Enhanced system</td>
<td>2,400 Pa</td>
</tr>
<tr>
<td>Water-tightness to BS EN 12154</td>
<td>R7, 600 Pa</td>
</tr>
<tr>
<td>Air-tightness to BS EN 12152</td>
<td>A4, 600 Pa</td>
</tr>
<tr>
<td>Dynamic test to CWCT</td>
<td>Pass</td>
</tr>
<tr>
<td>Impact resistance to BS 8200</td>
<td></td>
</tr>
<tr>
<td>Serviceability</td>
<td>120 Nm</td>
</tr>
<tr>
<td>Safety</td>
<td>500 Nm</td>
</tr>
<tr>
<td>Thermal Transmission $U_{cw}$ to BS EN ISO 10077 and BS EN 13947 fully glazed element with glazing $U_g = 1.1 \text{ W/m}^2\text{K}$</td>
<td>1.5 W/m²K SSG version</td>
</tr>
<tr>
<td>Live load slab deflections</td>
<td>Up to 12 mm</td>
</tr>
</tbody>
</table>

### Standard design elements
- SSG and capped versions are fully compatible
- Tested to CWCT sequence B
- Compliant with UK Building Regulations
- Compliant with requirements of CWCT and British and European Standards
- Fully patented system

### Commercial Advantages
- Highly economical unitised system
- Reduced lead-in periods with standard components
- Reduced design costs
- Reduced test costs for proven system
- Compliant with UK Building Regulations
- Rapid site installation without scaffold

### Options - project specific
- Integral vents - open out
- Glass/metal sheet/stone/terracotta GRC spandrel panels
- Blinds and integrated blind boxes
- Fins and shading devices
- Wider elements
- Thicker glazing units
- Facetted facades
- Sliding and side hung doors
CW65 Projects

Rathbone Market, Canning Town
Client & Developer: English Cities Fund
Architects: CZWG Architects LLP
Main Contractor: John Sisk & Son Ltd
Completion: 2012

CW65 capped, opening vents, bolt-on balconies, spandrel areas, pre-panellised structures

Woodberry Down, Hackney, London N4
Client & Developer: Berkeley Homes
Architects: Rolfe Judd
Completion: 2011

SSG glazing, opening vents, terracotta, GRC and metal spandrels, sliding doors, bolt-on balconies, ventilation penetrations on this major residential scheme.

Nexus Place, London EC4
Client: Tishman Speyer
Architects: Sturgis Associates
Main Contractor: ISG Interior Exterior
Completed: 2008

SSG system used as re-glazing method on this central London office project.
Reglazing technique

1. Secure Glass with Glassucker frame
   - Cut out silicone around Glazing
   - Cut off broken glass

2. Break out and remove SSG sealing profile

3. Set the new glass on the glass support and press spring into the groove

4. After new glass is set in position, make a periferical silicone joint to the back of the glass
Lindner CW85 facade system – The economical alternative.

SSG element – CW85 – Double glazed vision element

- Internal gasket
- SSG system
- Double Glazed Unit
- Engagement into framing profile prepared for reglazing
Lindner CW85 facade system is thermally efficient.

The CW85 direct bonded version provides excellent thermal performance and resistance to condensation.

Safety and quality come first with Lindner Facades.

As a business we are committed to ongoing improvement through the application of our Quality Management System to ISO 9001, Health and Safety to BS OHSAS 18001 and our sustainable Environmental Management System as per ISO 14001.
Lindner facade systems are sustainable.

To meet growing demands for sustainable buildings innovative solutions are required. CW65 is factory assembled to minimise waste. CW65 offers high levels of thermal, acoustic and weather performance, in service. Then, at the end of the buildings’ life cycle, the removal of the elements is easy.

The new assembly techniques allow the component materials to be readily reused or disassembled for recycling – a fact that is of ever increasing importance in today’s construction industry with the need for a sustainable approach and the demands of BREEAM, LEED and other environmental assessment systems for buildings.

CERTIFICATE

The Certification Body of TÜV SÜD Management Service GmbH certify that
Lindner Facades Ltd.
London TW7 6RJ, UK
has established and is applying an Environmental Management System for
Development, Design, Procurement, Project Management and Installation of
Facades and Curtain Walls.

An audit was performed. Report No. T9900534
Proof has been furnished that the requirements,
ISO 14001:2004
are fulfilled. The certificate is valid in conjunction
with the main certificate with 2012-11-13
Certificate Registration No. 12 104 8663/24 TMS

Munich, 2012-05-03
EMS-TGA-ZM-07-92

Lindner is a member of the U.S. Green Building Council (USGBC).
USGBC awards its LEED certificate to building projects exemplary for Leadership in
Energy and Environmental Design.

Lindner is also a founder member of the German Sustainable Building Council DGNB.
We can do it all for you.

Lindner Concepts:
- Insulation Engineering
- Clean Rooms and Laboratories
- Airports and Airlines
- Railways and Tunnels
- Studios and Concert Halls
- Interior Fit-out and Furnishings
- Cruise Liner and Ship Fit-out
- Hotels and Resorts
- General Contracting

Lindner Products:
- Facades
- Steel & Glass
- Roofing Systems
- Ceiling Systems
- Lights and Lighting Systems
- Partition Systems
- Doors
- Floor Systems
- Heating and Cooling Technologies
- Dry Lining Systems

Lindner Service:
- Green Building
- Deconstruction and Gutting
- Clearance of Harmful Substances
- Industrial Scaffolding
- Research and Development
- Delivery
- General Planning
- Installation
- Maintenance and Industrial Service
- Public-Private Partnership (PPP)

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