



## ICC-ES Listing Report ESL-1667

Issued May 2026

This listing is subject to renewal May 2027.

**CSI:** DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION  
Section: 07 21 00 – Thermal Insulation  
Section: 07 80 00 – Fire and Smoke Protection  
Section: 07 84 00 – Firestopping  
Section: 07 84 53 – Building Perimeter Firestopping

### Product Certification System:

The ICC-ES product-certification system includes evaluated evidence in support of test data in accordance with the standard(s) listed below. The system also involves factory inspections, and assessment and surveillance of the listee's quality system.

**Product:** SIDERISE CW-SI75, CURTAIN WALL SPANDREL INSULATION  
SIDERISE CW-FB, CURTAIN WALL FIRE BOARD

**Listee:** SIDERISE INSULATION LIMITED

**Evaluation:** Siderise CW-SI75 consists of 75 mm thick, noncombustible stone wool (128 kg/m<sup>3</sup>) core and integral aluminum foil facing laminated on a single side. Siderise CW-FB consists of 25 mm thick, noncombustible stone mineral wool (160 kg/m<sup>3</sup>) core and integral aluminum foil facing laminated on a single side. Siderise CW-SI75 spandrel insulation and CW-FB curtain wall fire board for use in curtain wall assemblies described in this listing report were evaluated based on a tested non-loadbearing wall assembly consisting of building-material components described in ICC Design No. TMP-1667-01, tested in accordance with the following standard:

- ASTM E2874-19, Standard Test Method for Determining Fire-Test Response Characteristics of a Building Spandrel-Panel Assembly Due to External Spread of Fire.

**Findings:** Curtain Wall Assemblies constructed of spandrel panel assemblies consisting of Siderise CW-SI75 spandrel insulation and CW-FB curtain wall fire board, are based on testing in accordance with the applicable test method as referenced in ICC Design No. TMP-1667-01. Approval of the product's use is the sole responsibility of the local building official.

### Identification:

1. The ICC-ES mark of conformity, electronic labeling, or the listing report number (ICC-ES ESL-1667) along with the name, registered trademark, or registered logo of the listee must be included in the product label.
2. In addition, spandrel panel assemblies consisting of Siderise CW-SI75 and Siderise CW-FB are identified by a label that includes the product name, the listee name (Siderise Insulation Limited), the ICC-ES Listing Mark, and the manufacturer's address.
3. The report holder's contact information is the following:

**SIDERISE INSULATION LIMITED**  
**FORGE INDUSTRIAL ESTATE**  
**MAESTEG, BRIDGEND CF34 0AH**  
**UNITED KINGDOM**  
**+44 1656 730833**  
[www.siderise.com](http://www.siderise.com)

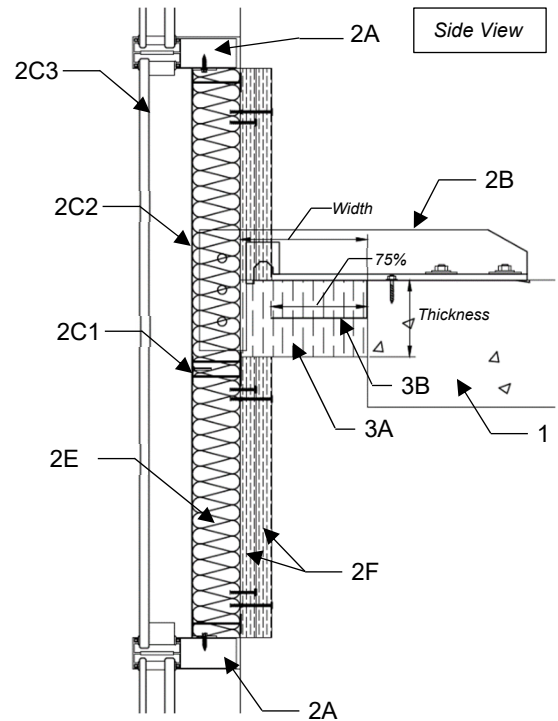
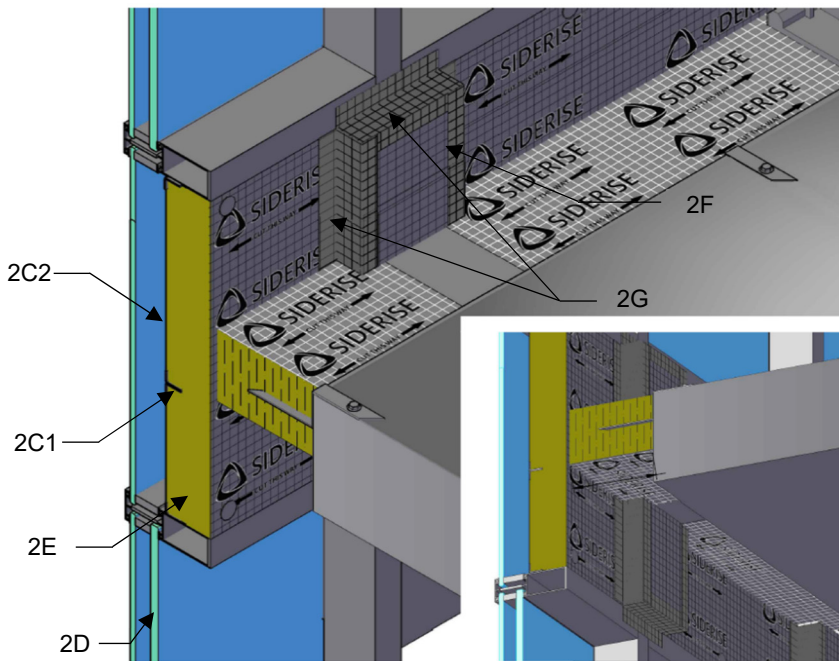
**Installation:** Siderise CW-SI75 and CW-FB spandrel-panel assembly for curtain walling must be installed in accordance with Siderise Insulation Limited's published installation instructions.

**Conditions of listing:**

1. The listing report addresses only conformance with the standards above.
2. The listing applies only to the materials tested and as submitted for review by ICC-ES.
3. Siderise CW-SI75 and Siderise CW-FB spandrel-panel assembly for curtain walling described in this listing report are manufactured under a quality control program with inspections by ICC-ES.

**Applicant:** SIDERISE INSULATION LIMITED  
**Product:** SIDERISE CW-SI75 and SIDERISE CW-FB  
**Standard:** ASTM E2874

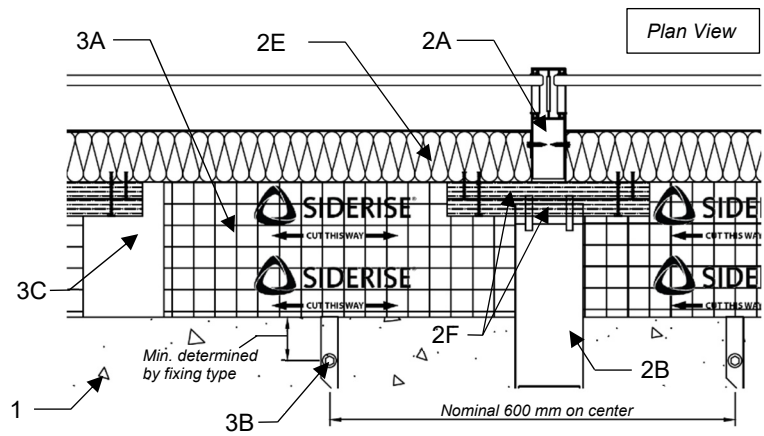
**“T” Rating:** 83-Minutes  
**“F” Rating:** 153-Minutes  
**“I” Rating:** 83-Minutes



**TABLE 1 — DESIGN NO. TMP-1667-01**

**Components of Construction**

Components of Construction	
1	Floor Assembly
2A	Curtain Wall Framing
2B	Curtain Wall Bracket System
2C1	Spandrel Panel – Steel Reinforcement Frame
2C2	Spandrel Panel – Galvanized Sheet Steel Pan
2C3	Spandrel Panel Vision Panel
2D	Curtain Wall Vision Panels
2E	Curtain Wall Insulation (Siderise CW-SI75 spandrel insulation)
2F	Mullion Covers (Siderise CW-FB curtain wall fire board)
2G	Aluminum Jointing Tape
3A	Perimeter Seal
3B	Perimeter Seal Fixing Brackets
3C	Aluminum Jointing Tape



Listings are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the listing or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this listing, or as to any product covered by the listing.

TABLE 2 — DESIGN NO. TMP-1667-01 COMPONENTS OF CONSTRUCTION

ITEM NO.	COMPONENTS	MATERIALS
1	<b>Floor Assembly—</b>	Minimum 8.0 inch (203 mm) thick reinforced normal weight structural concrete with a minimum unit weight of 125 lbs./ft <sup>3</sup> (2000 kg/m <sup>3</sup> ). Concrete floor assembly must have a 2-hour fire-resistance rating in accordance with ASTM E119.
2	<b>Curtain Wall Assembly—</b> Note: The curtain wall assembly must incorporate construction features A through G.	<p><b>A — Curtain Wall Framing</b> – Rectangular tubing mullions (vertical members) and transoms (horizontal members) of minimum 100 mm depth and 52 mm width dimensions must be formed from minimum 2.2 mm thick aluminum. Mullions (vertical members) spaced maximum 1483 mm on center. The maximum separation between the interior face of the mullions and the edge of the floor assembly must be 200 mm. Transoms (horizontal members) must be spaced at a maximum of 1500 mm on center vertically. The maximum height from the top of the concrete floor assembly to the bottom of the transom must be 687 mm.</p> <p>The mullions (vertical members) can be constructed as solid members, or as joining members that are split vertically. Joining members must use galvanized steel rectangular hollow sections (RHS) inserted into the mullions at the splice joint with at least 395 mm of overlap between the mullions and RHS on each half of the splice joint. The RHS must be secured to each mullion on each side of the splice joint using three (3) pan head tapping screws (4.8 mm diameter and 32 mm length) spaced nominally at 25 mm from the edges of the splice joint and 175 mm on center elsewhere.</p> <p><b>A1 — Tritosil W70 FR (Not Shown)</b> – When mullions comprise of joining members (split vertically), the splice joint at the joining members interface must be completely filled with Tritosil W70 FR fire rated silicone sealant manufactured by Triton Middle East, LLC. The maximum separation at the splice joint between the joining members must not exceed 10 mm wide.</p> <p><b>B — Curtain Wall Bracket System</b> – The mullions are secured to the top of the supporting floor assembly using a bracket-system in accordance with curtain wall system manufacturer’s published installation instructions.</p> <p><b>C — Spandrel Panels</b> – The spandrel panels must incorporate the following construction features:</p> <p><b>C1 — Steel Reinforcement Frame</b> – A pre-welded galvanized steel reinforcement frame consisting of perimeter L-shaped angles (50 mm by 65 mm by 1.5 mm thick) is secured to the transom and mullion profiles at a distance of 5 mm from the interior face of the transom and mullion profiles. The steel reinforcement frame must be secured using stainless-steel pan head tapping screws (4.3 mm diameter and 16 mm length) spaced nominally at 300 mm on center along the perimeter. Once perimeter framing is secured, additional L-shaped angles (25 mm by 40 mm by 1.5 mm thick) are installed back-to-back forming a T-shape and secured to the vertical reinforcement framing members. Three sets of T-shaped horizontal members are evenly spaced vertically and secured using four (4) stainless-steel blind rivets (3 mm diameter and 8 mm length). A 25 mm by 20 mm by 1.5 mm thick L-shaped angle cleat must be secured to each of the three T-shaped horizontal members and secured to the vertical mullions using stainless-steel blind rivets (3 mm diameter and 8 mm length).</p> <p><b>C2 — Sheet Steel Pan</b> – Minimum 1.5 mm thick galvanized sheet steel trays are secured to the perimeter L-angle framing of the steel reinforcement frame using stainless-steel blind rivets (3 mm diameter and 8 mm length) spaced nominally at 300 mm on center along the perimeter.</p> <p><b>C3 — Spandrel Panel Vision Panel</b> – One layer of 10 mm thick transparent heat-strengthened glass pane. Use of tempered or heat-strengthened glass panes, or as an alternative, decorative panels made of materials such as metals, stone, marble, that comply with the non-combustible requirements of ASTM E136 are acceptable as the exterior pane.</p> <p><b>D — Curtain Wall Vision Panels (Not Shown)</b> – Two layers of 6 mm thick transparent heat-strengthened glass panes separated by a 20 mm air gap. Use of tempered or heat-strengthened glass panes, or alternative decorative panels of suitable materials like metals, stone, marble, etc. meeting requirements of ASTM E136 are acceptable as the exterior pane.</p> <p><b>E — Curtain Wall Insulation System</b> – All spandrel panels must be insulated with one layer of 75 mm thick Siderise CW-SI75 (Curtain Wall Spandrel Insulation), with a minimum 128 kg/m<sup>3</sup> (8 lbs./ft<sup>3</sup>) density, installed on the interior face of the curtain wall with aluminum foil facing exposed to the room interior and fixed to the perimeter L-shaped angles and intermediate T-shaped members using welded galvanized steel pins (30 mm diameter and 1.5 mm thick pin base, 75 mm depth and 2 mm thick pin dimensions). The steel pins must be spaced a maximum of 2-inches from the perimeter of the reinforcement frame and maximum 12-inches on center. Siderise RFT120 self-adhesive aluminum jointing tape must be applied along the perimeter edges, splice joints, and over the welded pins of the spandrel insulation.</p> <p><b>F — Mullion Covers</b> – Two layers of minimum 25 mm thick Siderise CW-FB (Curtain Wall Fire Board), with a minimum density of 10 lbs./ft<sup>3</sup> (160 kg/m<sup>3</sup>), cut into 1448 mm long by 200 mm wide panels, are installed vertically onto the Siderise CW-SI75 (Curtain Wall Spandrel Insulation) on the interior side of the curtain wall, thereby overlapping the mullion profiles along the spandrel panels. The base layer of Siderise CW-FB is secured to the layer of CW-SI75 using 40 mm long Spiral Screws spaced 250 mm on center vertically. The face layer of Siderise CW-FB is secured through the base layer to the layer of CW-SI75 using 65 mm long Spiral Screws spaced 250 mm on center vertically and staggered from the base layer screws.</p> <p><b>G — Aluminum Jointing Tape</b> – All exposed edges of the mullion covers, and the interface of the mullion covers and spandrel panels must be covered by Siderise RFT120 self-adhesive aluminum jointing tape.</p>
3	<b>Perimeter Joint Protection—</b> Note: The maximum separation between the edge of the floor assembly and the interior face of the framing system (curtain wall assembly) must be 200 mm. The perimeter joint protection must incorporate construction features A through C.	<p><b>A — Perimeter Seal</b> – 240 mm thick Siderise CW-FS120 reinforced aluminum foil-faced lamella boards (ESL-1524), with a nominal density of 75 kg/m<sup>3</sup> (4.7 lbs./ft<sup>3</sup>) must be used in the gap between the edge of the floor assembly and the face of the framing system. CW-FS120 must be compressed 20% and installed with mineral fiber grains oriented vertically with aluminum foil-facings on top and bottom.</p> <p><b>B — Perimeter Seal Fixing Brackets</b> – Siderise CW-FS120 (ESL-1524) boards must be fixed to the reinforced concrete floor assembly with 1 mm thick, 25 mm wide Siderise B195 galvanized steel fixing brackets (Z-shaped profile formed and installed in accordance with Siderise’s published installation instructions. The brackets are embedded into the Siderise CW-FS120 board, at a total depth of 75% of the perimeter seal, Item 3A, at 300 mm from their extremities (200 mm if close to a fixation of the curtain wall assembly), and maximum spacing of 600 mm on center between brackets. The fixing brackets must be secured to the concrete floor assembly using corrosion-resistant, M6.3 mm by 45 mm long, slotted-hex head screws.</p> <p><b>C — Aluminum Jointing Tape</b> – All splices and butt joints between Siderise CW-FS120 (ESL-1524) boards must be covered by Siderise RFT120 self-adhesive aluminum jointing tape on the top side of the perimeter fire barriers.</p>

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lbs./ft<sup>3</sup> = 16.01 kg/m<sup>3</sup>