## Electrical & Mechanical Services Enclosures

### Integrity & Insulation

<table>
<thead>
<tr>
<th>Product</th>
<th>Fire Rating</th>
<th>Collar Size</th>
<th>Mineral Wool</th>
</tr>
</thead>
<tbody>
<tr>
<td>VICUCLAD® or VICUTUBE</td>
<td>30mm thick</td>
<td>60/60/60</td>
<td>80mm x 30mm thick</td>
</tr>
<tr>
<td></td>
<td>40mm thick</td>
<td>120/120/120</td>
<td>80mm x 40mm thick</td>
</tr>
<tr>
<td></td>
<td>70mm thick</td>
<td>240/240/240</td>
<td>80mm x 70mm thick</td>
</tr>
<tr>
<td>PROMATECT®-H</td>
<td>9mm thick</td>
<td>60/60/60</td>
<td>100mm x 9mm thick</td>
</tr>
<tr>
<td></td>
<td>15mm thick</td>
<td>120/120/120</td>
<td>100mm x 15mm thick</td>
</tr>
<tr>
<td></td>
<td>20mm thick</td>
<td>240/240/240</td>
<td>100mm x 20mm thick</td>
</tr>
<tr>
<td>PROMATECT®-L500</td>
<td>20mm thick</td>
<td>120/120/120</td>
<td>100mm x 20mm thick</td>
</tr>
<tr>
<td></td>
<td>50mm thick</td>
<td>240/240/240</td>
<td>100mm x 20mm thick</td>
</tr>
<tr>
<td>PROMATECT®-S</td>
<td>6mm thick</td>
<td>120/120/120</td>
<td>100mm x 6mm thick</td>
</tr>
<tr>
<td></td>
<td>9.5mm thick</td>
<td>240/240/240</td>
<td>100mm x 9.5mm</td>
</tr>
</tbody>
</table>

### Integrity Only

<table>
<thead>
<tr>
<th>Product</th>
<th>Fire Rating</th>
<th>Collar Size</th>
<th>Mineral Wool</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROMATECT®-H</td>
<td>9mm thick</td>
<td>120/120/-</td>
<td>100mm x 9mm thick</td>
</tr>
<tr>
<td></td>
<td>12mm thick</td>
<td>240/240/-</td>
<td>100mm x 12mm thick</td>
</tr>
<tr>
<td>PROMATECT®-L500</td>
<td>25mm thick</td>
<td>120/120/30</td>
<td>100mm x 25mm thick</td>
</tr>
<tr>
<td></td>
<td>50mm thick</td>
<td>240/240/120</td>
<td>100mm x 50mm thick</td>
</tr>
<tr>
<td>PROMATECT®-S</td>
<td>6mm thick</td>
<td>120/120/-</td>
<td>100mm x 6mm thick</td>
</tr>
<tr>
<td></td>
<td>9.5mm thick</td>
<td>360/360/30</td>
<td>100mm x 9.5mm</td>
</tr>
</tbody>
</table>
1 to 4 hour(s) fire rating, integrity and insulation in accordance with the criteria of BS 476: Part 20 and AS 1530: Part 4; internal or external fire.

1. VICUCLAD® or PROMATECT® boards, thickness in accordance with table on first page

2. PROMATECT®-H strips, 100mm wide x 9mm thick where applicable

3. VICUCLAD® or PROMATECT® collar, size in accordance with table on first page

4. Steel channel collar minimum 50mm x 50mm x 0.9mm at butt joints of nominal 1220mm centres

5. M4 self-tapping screws at nominal 200mm centres

6. For 2 hours fire rating: Threaded rod hanger stress not to exceed 10 N/mm²
   For 4 hours fire rating: Threaded rod hanger stress not to exceed 6 N/mm²

7. 1, 2 or 3-sided construction: (≤ 2 hours fire rating)
   Steel angle minimum 50mm x 50mm x 0.9mm
   (≤ 4 hours fire rating)
   Steel angle minimum 50mm x 50mm x 3mm
   4-sided construction:
   Steel angle minimum 30mm x 30mm x 0.5mm

8. M4 self-tapping screws at nominal 200mm centres or steel staples 63mm x 10mm x 1mm at nominal 100mm centres

9. General E & M services e.g. cable trunking and steel pipes, etc

10. Mineral wool, requirement in accordance with table on first page

11. Cantilever arm at maximum 1250mm centres

NOTE: Solutions for the construction of systems with 1, 2 and 3-side used in combination with walls and ceilings are approved, details on request.

The above details are applicable for enclosures not exceeding 1220mm wide, PROMATECT® enclosures for E&M services are approved for widths up to 6m, please consult your local Promat technical department for details.

The above specifications are applicable for providing a fire resistance level in accordance with the integrity and insulation requirements of BS 476: Part 20 and AS 1530: Part 4 and relate to compartmentation. The constructions as detailed above do not necessarily provide sufficient insulation performances to ensure that the services contained therein will continue to function under fire conditions. If in doubt, please contact your local Promat Technical Department.
Detail 4 1-sided enclosure

Detail 5 2-sided enclosure

Detail 6 3-sided enclosure (Case 1)

Detail 7 3-sided enclosure (Case 2)

Detail 8 4-sided enclosure

NOTE: Please consult your local Promat Technical Department for construction details for enclosures widths over 1220mm.
For the provision of fire resisting constructions to cable ducts and general building services in accordance with the performance criteria of BS 476: Part 20 and AS 1530: Part 4. As no specific British Standard exists to such applications, Promat constructions have been tested in accordance with the criteria of German DIN or British Standard BS 476: Part 24, and appraised to BS 476: Part 20.

The appraisals include allowance for both internal and external fire. The integrity and where pertinent the insulation performance of the enclosure, and any penetrations through compartment walls and floors, is measured.

Circuit integrity of electrical cables, or ability of the services to function are not measured and do not constitute part of the failure criteria. Where circuit integrity of electrical cables are required, please refer to the PDF (Study of Electrical Cables for External/Internal Fire). For the provision of a protection system which will ensure the ability of any other services to function in case of fire remains unimpaired, e.g. fuel pipes, water mains, please consult the Promat Technical Department.

**TECHNICAL DATA**

2 hours fire rating, integrity in accordance with the criteria of BS 476: Part 20 and AS 1530: Part 4; internal or external fire.

1. Fire protection boards, thickness in accordance with table on first page
2. Steel channel collar minimum 50mm x 25mm x 0.5mm at butt joints of nominal 1220mm centres
3. E & M services like cable trunking and steel pipes, etc
4. Hanger diameter sized to limit stress not to exceed 10 N/mm²
5. M4 self-tapping screws at nominal 200mm centres
6. Steel angle minimum 30mm x 30mm x 0.5mm at corners

4 hours fire rating, integrity in accordance with the criteria of BS 476: Part 20 and AS 1530: Part 4; internal or external fire.

1. Fire protection boards, thickness in accordance with table on first page
2. Steel channel collar minimum 50mm x 25mm x 0.5mm at butt joints of nominal 1220mm centres
3. E & M services like cable trunking and steel pipes, etc
4. Hanger diameter sized to limit stress not to exceed 6 N/mm²
5. M4 self-tapping screws at nominal 200mm centres
6. Steel angle minimum 30mm x 30mm x 0.5mm at corners

NOTE: Solutions for the construction of systems with 1, 2 and 3-side used in combination with walls and ceilings are approved, details on request.

For enclosure with a width exceeding 1220mm, the steel channel collar shall be spaced at centres such to ensure a maximum unsupported area not exceeding 1.5m². The maximum approved width of the construction details herein is 6000mm.

If the E & M service being encased is a plastic pipe, external hangers and angles with stress 10 N/mm² will be required to independently support the enclosure.
PROMATECT®-S enclosures provide protection against fire to cable ducts and general building services in accordance with the relevant criteria of BS 476: Parts 20 and 22, and AS 1530: Part 4.

PROMATECT®-S systems are eminently suitable for providing protection to services even under extremely aggressive environments.

The PROMATECT®-S systems described below ensure the integrity of fire compartments. If the services are required to continue functioning in the event of fire, please consult the Promat Technical Department.

The maximum permissible dimensions for enclosures are up to 6000mm x 2000mm for up to 240 minutes fire resistance.