Technical Data Sheet

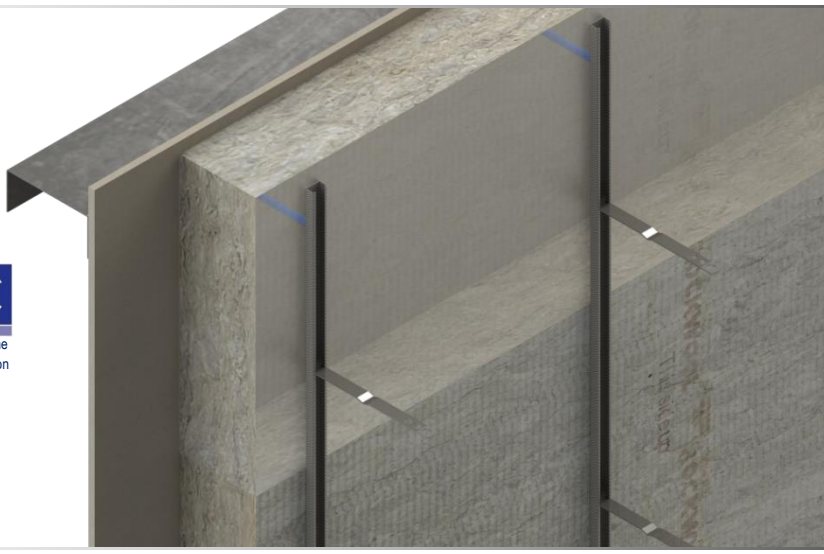
ACS ROCKWOOL Framefix

Used in conjunction with the ACS 25/15 4000 Range Channel Tie

- ✓ **Austenitic Stainless Steel** (Grade 1.4301)
- ✓ **CE Marked** (EN 845-1)
- ✓ **Lucideon Tested**
- ✓ **Masonry - Channel Tie**
- ✓ **2.7m Standard Lengths**
- ✓ **Standoff Sleeves**
  - *Low Thermal Conductivity*
  - *High Compressive Strength*
  - *Stabilises Channel*
  - *Class 2 Fire Resistant (BS 476)*
  - *Prevents Compression of Insulation*
  - *Aids Installation*

NHBC
Meets the Requirement of the NHBC Technical Specification

CE
BS EN 845 -1



Technical Data

ACS ROCKWOOL Frame Fix is designed to allow an outer leaf of a cavity wall constructed from masonry to be tied to light steel frame or other structural element through mineral wool insulation using a suitable fixing. Composite, high compressive capacity sleeves are used at every fixing position to provide a rigid, high capacity fixing detail. The sleeves have a Class 2 fire resistance to BS476 Part 6. The channel is fixed back to the structure via the pre-punched holes in the channel which are spaced at close centres to allow the fixing point to be selected depending on the application. Once fixed, ACS 4000 range ties can be positioned at any point along the channel to suit the coursing of the masonry panel.

System Performance

Table 1.0 below provides wall tie type performance values from PD 6697 based on standard stud centres of 600mm.

Panel Required Type (PD 6697)	Wall Tie Vertical CTRS (mm)	Fixing Vertical CTRS (mm)	Panel Unfactored Design Resistance (kN/m^2)	Panel Factored Design Resistance (kN/m^2)
Type 1	300	337.5	2.27	3.41
Type 2	450	337.5	1.51	2.27
Type 3	450	450	0.91	1.37

1.0 – Channel Tie/Fixing Centres

For alternative performance requirements or spacing's, please contact the ACS Technical Department for further information.

Installation

The channel is typically fixed back to the SSF/Studwork through mineral wool insulation and CP board. Each fixing requires a compression sleeve to be pushed through the insulation to bear onto the CP board and studwork behind. Fixings can then be installed through channel and sleeves and driven into the SFS studs. Studs are normally set at 600mm horizontal centres. Ties can then be positioned at any point along the channel length to suit the bed joint coursing at the required vertical centres. (Refer to Table 1.1)

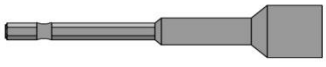
Fixings Screws

The ACS ROCKWOOL Frame Fix Channel standard configuration is designed to fix back to the studwork at 450mm vertical centres. The pre-punched holes in the rear of the channel are spaced at 112.5mm centres so a fixing can always be positioned near to the end of the channel and the fixing centres can be varied to increase or reduce the load capacity as required (See Table 1.0). Self-tapping screws can be supplied to accommodate fixing through mineral wool insulation of up to 150mm as standard. Other lengths are available upon request.

ACS recommends the use of stainless steel screws for fixing the channel back to the studwork. Isolated galvanised screws can also be provided on request.

Socket and Fixing

ACS Self Drilling & Tapping Hi Thread Screw



5/16ths Drive Unit

Insulation Thickness (mm)	Screw Length (mm)
75	105
100	130
125	150
150	180

Table 1.1 – Tech Screw Lengths

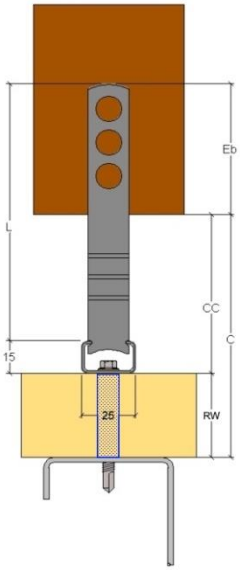
Technical Data Sheet

Screw Performance

Stud Gauge	Characteristic Capacity (kN)	Design Resistance (kN)
1.2mm	1.70	0.85
1.6mm	2.10	1.05
2.0mm	2.50	1.25
2.5mm	3.20	1.60
3.0mm	4.30	2.15
4.0mm	5.50	2.75

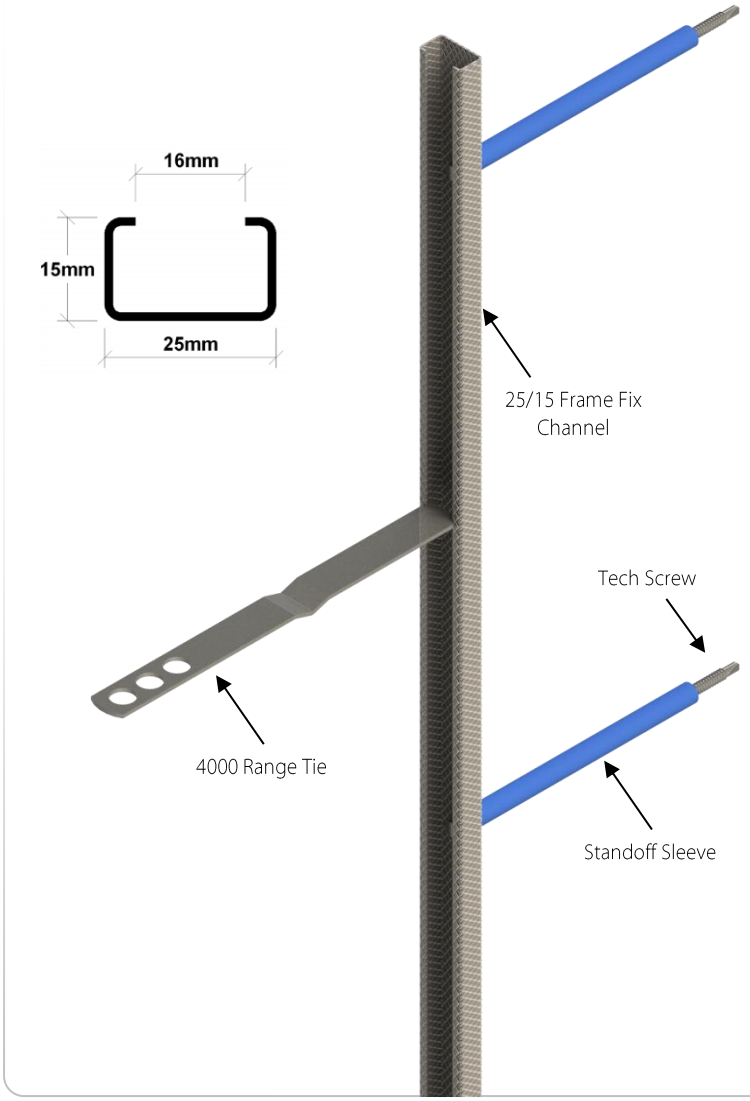
Table 1.2 – Tech Screw Capacities

Tie Lengths



An ACS 4000 Range Channel Tie should be selected to ensure a minimum of 50mm and a maximum of 75mm is selected to ensure that the minimum embedment of 50mm is always achieved. ACS recommends that ties should be selected to an embedment (Eb) of 62.5mm.

L	Tie Length	Eb + CC – 15
Eb	Embedment	62.5mm (Min 50mm)
CC	Clear Cavity	C – RW
C	Structural Cavity	Varies
RW	ROCKWOOL	Varies



Tie Reference	Tie Length (mm)	Clear Cavity Range (mm)
ACS4000/100	100	40-65
ACS4000/125	125	66-90
ACS4000/150	150	91-115
ACS4000/175	175	116-140
ACS4000/200	200	141-165
ACS4000/225	225	166-190
ACS4000/250	250	191-215
ACS4000/275	275	216-240
ACS4000/300	300	241-265

Table 1.3 – Tie Lengths

Standoff Sleeves

The ACS ROCKWOOL Framefix system is supplied with standoff tubes which correspond to the thickness of the insulation specified. The tubes are designed to ensure that the compressive strength and stability of the channel tie system is achieved and maintained by preventing the channel deflecting into and compressing the insulation during installation and whilst under normal load.

The tubes are manufactured from a fire resistant composite material with a thermal conductivity of 0.300 W/mK.

For further information or technical assistance please contact the ACS Technical Department on 0870 850 0860 or email technical@acsstainless.co.uk

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