

## DATA SHEET

# SPORTS HALLS: IMPACT PROTECTION USING XPR SYSTEMS

The superior performance of XPR allows it to be used as a cladding for ceilings and walls in sports halls where impact protection as well as sound proofing and fire protection qualities are paramount.

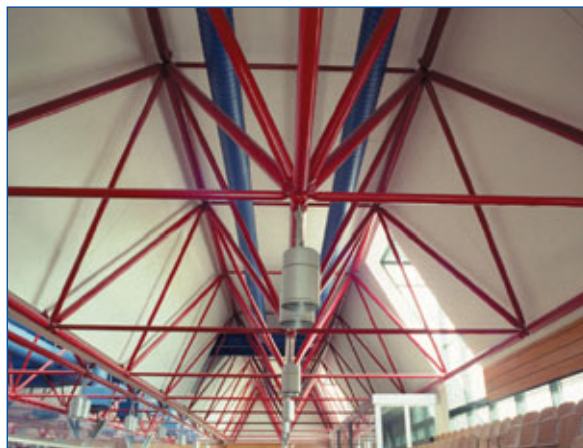
### Requirements

Wall and ceiling constructions in sports halls must not only meet technical fire-proofing and sound insulation requirements, but they must also provide impact resistance from balls and bodies. The linings must be able to withstand mechanical impact stresses without sustaining permanent damage.

### The solution

For wall constructions in sports halls, a double layer lining using 12.5mm FERMACELL enables higher levels of protection against ball impact (eg. behind a hockey goal) to be achieved.

Simple ball impact protection for ceilings can easily be achieved with a single layer of 12.5mm FERMACELL (to DIN Standard 18032-2); for greater protection a second layer may be used.



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# INSTALLATION

### CEILING CONSTRUCTIONS

Ball impact for ceiling linings is provided with just one layer of 12.5mm FERMACELL.

- Support for PROTEKTOR steel profiles (min 50mm fixing face and 0.6 gauge steel) max. 300mm centres.
- Board fixings – FERMACELL dry wall screws (3.9mm x 30mm, fixing centres  $\leq 200$ mm).
- Board jointing – FERMACELL Jointstik adhesive system.
- Two layers may be used as required.

### WALL CONSTRUCTIONS

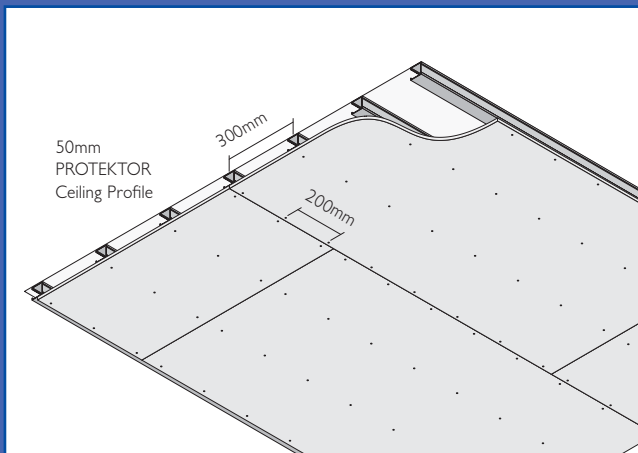
For wall linings with greater requirements for protection against ball impact (including hockey balls), two layers are required:

#### First (Lower) layer

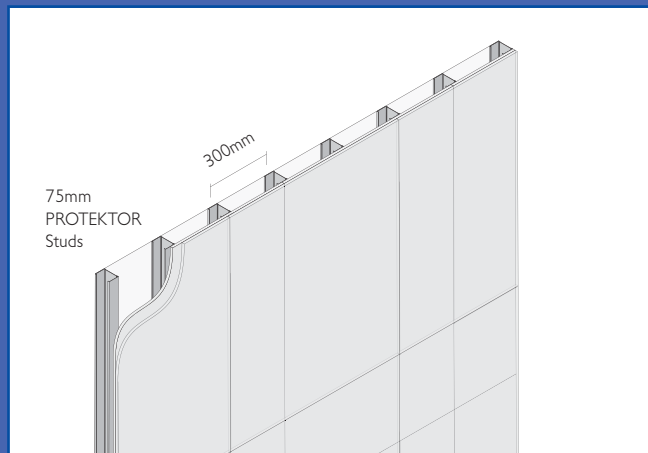
- Stud support centres – PROTEKTOR steel studs (75mm x 50mm fixing face x 0.6 gauge steel Studs) max. 300mm centres.
- Board fixings – FERMACELL dry wall screws (3.9 x 30mm, fixing centres  $\leq 400$ mm board jointing – dry butt joint).

#### Second layer

- Fixing 12.5mm thick FERMACELL Gypsum Fibre Boards through the first layer into the substructure; fixings - FERMACELL dry wall screws (3.9 x 45mm, fixing centres  $\leq 200$ mm. Joints to be staggered between the two layers of FERMACELL by  $\geq 200$ mm).
- Board jointing – FERMACELL Jointstik adhesive.



ceiling construction



wall construction