



# INNOVATIVE WALL COVERING SYSTEMS

for sports facilities

#### 2.0 SHOCK REDUCING WALL COVERING SYSTEMS BY PLATURN

## **2.1 SANDWICH PANEL SYSTEMS**

Sandwich systems combine the advantages of two systems:

- the unmatched damping effect of point-elastic wall coverings and
- the unlimited design flexibility of area-elastic shock reducing wall covering systems.

Conventional systems use "loose" substructure components to reduce the impact force. This can lead in particular to undefined absorption values over the expected life span of the product. Whereas sandwich elements offer invariable sport-functional and protective function properties over their entire life span.

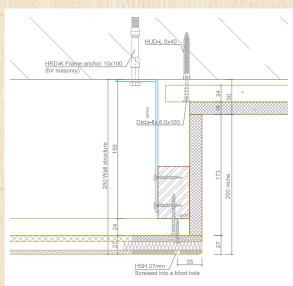
With a construction height of only 27 mm they meet all requirements of the Austrian standard ÖNORM and the Austrian Institute for School and Sports Facilities ÖISS. This means that also impact reducing doors, audio equipment storage spaces and other components can be equipped with the same properties as the wall coverings – regardless of the size of the individual components.

### 2.1.1 PLATURN HSH

- **Platurn HSH:** Protected shock reducing sandwich element in accordance with the directives of the Austrian Institute for School and Sports Facilities ÖISS.
- **Top layer:** Flexible wood-based panel, which guarentees safety against ball throwing and the immediate transmission of the impact force to the absorbing element.
- Absorption layer: The specially developed core of highly effective recycling foam ensures excellent energy absorption properties. As a result the risk of injuries is reduced and an optimal ball rebound rate guarantees pure pleasure of playing.
- **Carrier layer:** A durable wood based panel supports the absorption layer and acts as the connecting element to substructures or walls.
- Safe against ball throwing in accordance with the German standard DIN 18032-3
- Shock reducing properties in accordance with the ÖISS-directives for shock reducing wall coverings
- Fire rating: Class D-s2,d0 in accordance with the Austrian standard ÖN EN 13823
- Fire rating: Class B-s2,d0 in accordance with the Austrian standard ÖN EN 13823 when equipped with special absorption elements.
- Made of PEFC-certified wood
- Mounting options: concealed or visible fixing
- Standard size: 2480 x 1230 mm
- Thickness: 27 mm



## **TECHNICAL DETAILS**

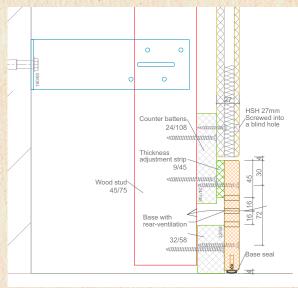


Horizontal section (gymnastics apparatus – recess)

#### 24/58 -Birch plywood panel 18 mm #20d8 including mounting holes, UV coated addate 丙酮 1121 18 ي —Upper cover board -Counter battens 24/58 Shock-reducing wall covering HSH 27mm. including mounting holes, UV coated Counter battens -18/58 27 Wood stud 45/75 24 Metal bracket 190/60 Cover panel joints with black acoustic fleece at the back HRD-K Frame anchor 10x100 $\,^{\circ}$ 0 0

78.85

Pedestal detail - vertical section







Vertical section (incl. inflexible wall covering)

## 2.1.2 PLATURN HSH MICRO

#### PLATURN HSH ACOUSTICALLY EFFECTIVE

Because of the growing need for acoustically effective wall coverings also up to a height of 2.62 m above floor level we have expanded our highly successful HSH system. In cooperation with renowned acousticians we developed the following systems:

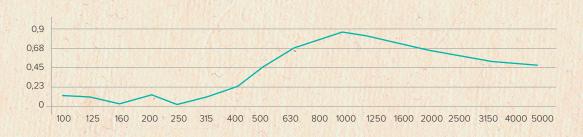
#### **PLATURN HSH MICRO**

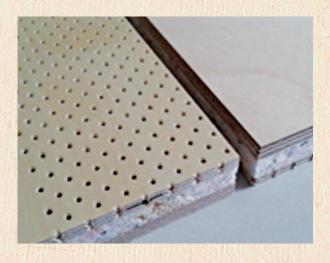
- Features:
  - Safe against ball throwing in accordance with the German standard DIN 18032-3
- Shock reducing properties according to the directives of the Austrian Institute for School and Sports Facilities ÖISS
- Minimal construction height 27 mm
- Reduces structure-born noise
- Absorption class D High frequency absorber
- Individual design (veneer, colour)
- Fire rating: Class D-s2,d0
- Fire rating: Class B-s2,d0 possible
- PEFC certified

#### Acoustic concept:

The system meets all requirements for wall coverings in sports facilities when fixed to the wall (where required by the construction). With a construction height of only 27 mm the system reaches an absorption value w of 0.4. Applied together with an acoustically effective ceiling covering with a perforation pattern of e.g. 16/16/8, you achieve an ideal acoustic solution with no need for additional wall coverings above the shock reducing elements.

Acoustic evaluation: αw 0,4





#### 2.1.3 PLATURN HSH MICRO PLUS

## WOOD BASED ACOUSTICALLY EFFECTIVE SHOCK REDUCING WALL COVERING

Sometimes the acoustic requirements for shock reducing wall covering systems are very high. For example if, for structural reasons, the installation of an acoustically effective ceiling covering is impossible. To be able to fulfill these requirements we developed "HSH Micro plus" in addition to "HSH micro".

The perforation on the rear surface together with an effective absorption layer in the substructure leads to impressive absorption values.

#### PLATURN HSH MICRO PLUS

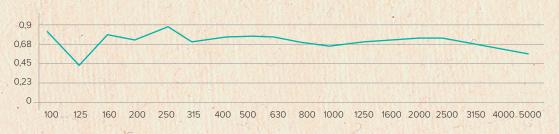
#### Features:

- Safe against ball throwing in accordance with the German standard DIN 18032-3
- Shock reducing properties according to the directives of the Austrian Institute for School and Sports Facilities ÖISS
- Minimal construction height 27 mm
- Reduces structure-born noise
- Absorption class C Broadband absorber
- Individual design (veneer, colour)
- Fire rating: Class D-s2,d0
- Fire rating: Class B-s2,d0 possible
- PEFC certified

#### Acoustic concept:

Due to the special treatment of the carrier panel and the utilisation of the construction space for the required absorption layer we can offer a shock reducing wall covering that complies with the legal requirements and has an absorption value w of 0.75. Therefore a shock absorbing wall covering made of PLATURN HSH micro plus is sufficient to comply with the acoustic requirements according to the Austrian standard ÖNORM if the sports facility is used as typically intended.

Acoustic evaluation: αw 0,75







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