

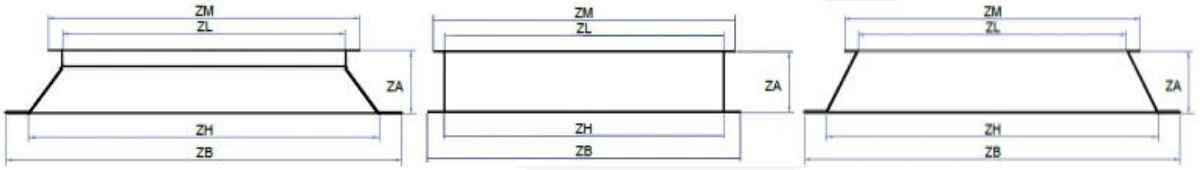


GALVANIZED STEEL UPSTAND WITH ROCK WOOL INSULATION

Technical Data Sheet

PRODUCT DESCRIPTION

Shams galvanized steel upstands with rock wool insulation are manufactured from 1.5 mm thick galvanized steel sheet, which prevents oxidation and corrosion and provides a clean, modern exterior appearance. Standard heights: 150 mm and 300 mm.



They are designed to be installed together with Shams domes manufactured in PMMA (acrylic), solid polycarbonate and HeatStop. Upstands are available with square and rectangular bases and can be combined with the different Shams opening systems.

FIRE PERFORMANCE – STEEL UPSTAND

According to the European standard UNE-EN 13501-2:2009+A1:2010, which specifies the classification of construction products and building elements based on their fire performance, Shams galvanized steel upstands achieve the following classification:

Euroclass: B-s1,d0 **Reaction to fire:** Combustible – very limited contribution to fire **Smoke production:** Low smoke production **Droplets/particles:** No flaming droplets or particles produced.

MECHANICAL PROPERTIES – STEEL SHEET (TENSILE TEST)

- **Maximum tensile strength Rm:** 360 N/mm² (EN 10346:2015)
- **Maximum yield strength Re:** 315 N/mm² (EN 10346:2015)
- **(Re / Rm) × 100:** 88 (EN 10346:2015)
- **Elongation at break:** 35 % (EN 10346:2015)

TECHNICAL FEATURES OF THE INSULATION

The insulation consists of a rigid panel made of rock wool bonded with resins. The mono-density structure of the rock wool provides the Shams galvanized steel upstands with high resistance to foot traffic. The facing on one side of the panel facilitates adhesion of bituminous and synthetic waterproofing membranes. The panel offers excellent thermal and acoustic insulation performance. It is non-combustible and resistant to moisture.

MAIN ADVANTAGES

- Higher effectiveness for low-maintenance roofs, as the Shams insulation is made of a chemically inert material.
- High resistance to foot traffic and punching due to its mechanical rigidity.
- Thermal and dimensional stability.
- Significant improvement of the acoustic insulation of the roof build-up.
- High sound absorption capacity.
- Safety in case of fire because it is non-combustible.
- Non-hydrophilic and non-hygroscopic – resistant to moisture.
- Free of CFC and HCFC – environmentally friendly.
- Excellent substrate for finishing with bituminous and synthetic membranes.

FIRE PERFORMANCE – INSULATION PANEL

According to the European standard UNE-EN 13501-2:2009+A1:2010, which specifies the classification of construction products and building elements based on their fire performance, the rock wool insulation panel used in Shams upstands is classified as:

Euroclass A1: Non-combustible. No contribution to fire.

TECHNICAL CHARACTERISTICS – ROCK WOOL PANEL

- **Nominal density:** 145 kg/m³ (EN 1602)
- **Thermal conductivity:** 0.039 W/(m·K) (EN 12667)
- **Thermal resistance (R):** 1.25 m²·K/W
- **Thickness tolerance:** T5 (EN 823)
- **Dimensional stability at specific temperature and humidity:** DS(70/90) (EN 1604)
- **Compressive strength:** CS(10/Y)50 = 50 kPa (EN 826)
- **Point load:** PL(5) 500 = 500 N (EN 12430)
- **Water vapour diffusion resistance factor:** μ = 1 (EN 12086)
- **Short-term water absorption:** WS < 1.0 kg/m² (EN 1609)
- **Long-term water absorption by partial immersion:** WL(P) < 3.0 kg/m² (EN 12087)

The values shown are based on the technical data provided by the raw material supplier and correspond to tests carried out under standard conditions. Shams reserves the right to introduce modifications derived from product development and improvement.