



PVC 90° UPSTAND

Technical Data Sheet

PRODUCT DESCRIPTION

Shams PVC 90° upstands are manufactured from rigid, hard, dimensionally stable and inert PVC, which is not affected by adverse weather conditions. PVC offers excellent corrosion resistance and PVC products can reach a service life of more than sixty years. In addition, Shams upstands are lightweight and fully recyclable.

The straight upstand design incorporates a honeycomb structure and an internal air chamber that provide enhanced thermal insulation. This energy-efficient configuration contributes to a reduction in the building's overall energy consumption.

Shams PVC 90° upstands are supplied in white. The internal surface is smooth and the external surface is ribbed to improve adhesion of the waterproofing system.

They can be equipped with domes manufactured in PMMA (acrylic), solid polycarbonate and Heatstop versions, as well as with the different opening systems. They are available with square and rectangular bases. **Standard height:** 180 mm.

FIRE PERFORMANCE

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 PVC 90° upstands achieve the following Euroclass rating:

Euroclass: B-s3,d0 **Reaction to fire:** Combustible – very limited contribution to fire **Smoke production:** High **Droplets/particles:** No flaming droplets or particles produced.

The PVC 90° upstand presents very low flammability: it does not burn easily and does not sustain combustion by itself. The material is self-extinguishing, as it ceases to burn once the external source of heat has been removed. According to UL 94 (tests for determining the self-extinguishing behaviour of plastics), the PVC 90° upstand is classified as **V0 – self-extinguishing in 10 seconds without dripping**.

The installation of Shams PVC 90° upstands provides additional safety, as PVC is an electrical insulating material. The product complies with Directive 2011/65/EU (RoHS) and Delegated Directive (EU) 2015/863 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

PHYSICAL PROPERTIES

• **Density (at 23°C):** 1.48 – 1.54 g/cm³ (UNE EN ISO 1183)

MECHANICAL PROPERTIES

• **Tensile strength:** min. 37 MPa (UNE EN ISO 527)

• **Compressive strength:** Excellent (DIN 53454)

• **Impact resistance:** High (DIN 53453)

• **Flexural strength:** 55.67 MPa (ASTM D-790)

• **Impact strength, Charpy:** 8.2 kJ/m² (ASTM D-256)

• **Rockwell hardness:** 84.5 HD (ASTM D-785)

THERMAL PROPERTIES

• **Vicat softening temperature:** min. 81°C (UNE EN ISO 306)

• **Elongation at break:** min. 115% (UNE EN ISO 527)

• **Thermal conductivity coefficient (λ):** 0.16 W/m·K

• **Thermal transmittance (U-value):** 1.4 W/m²K (ISO 10077)

CHEMICAL RESISTANCE

Resistance to chemical agents: Excellent (UNE 53-029-82).

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