



TECHNICAL DATA SHEET

PENTASEAL FUNCTIONS

- **Excess of 750pa Wind Driven Rain Protection**
- **100% Airtight Internal Seal**
- **Optimal Outwards Vapour Diffusion**
- **Thermal Insulation & Thermal Break**
- **Sound Insulation – up to 56 dB**

Pentaseal is a BBA approved multi-functional, permanently elastic perimeter sealing tape that removes the need for traditional, labour intensive, sealing methods and materials. Replacing grouts, silicones, mastics & spray foams, Pentaseal offers a complete, all in one UV light and weather resistant sealing solution that is simple to install. Pentaseal remains permanently elastic and will continually expand and contract as dictated by structural movement without any detrimental effect on performance.

10 Year Function Warranty | 20 Year BBA Approved Life Cycle

WIND DRIVEN RAIN PROTECTION

Impermeable to driving rain, minimum of 750 Pa protection.

100 % AIRTIGHT INTERNAL SEAL

Contributing to minimising heat loss by convection.

VAPOUR DIFFUSION

Pentaseal offers an optimal vapour diffusion gradient from the inside outwards with an sd-value of 40 : 1 (internal > 22; external ≤ 0.5) DIN EN ISO 12572.

THERMAL INSULATION

U-Value Range of 0.6 W / (m²·K) to 0.8 W / (m²·K) dependant on tape width / construction joint depth.

THERMAL BREAK

With a Thermal Conductivity of λ10,tr ≤ 0.048 W / m · K Pentaseal® also provides an excellent thermal break solution.

SOUND INSULATION

Up to 56 dB sound reduction when tested in a 10mm joint. This figure further improves when the tape width and thickness increases.

Multi-Solution Construction Joint / Connection Seal which can Contribute to Increasing PSI Calculation Values.

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PENTASEAL COMBINES THE FOLLOWING REQUIREMENTS IN ONE SOLUTION;

- **Building Energy Act (GEG, EnEV valid 31.10.20)**
- **RAL “installation guide”**
- **UK Building Regulations**

Full Technical Support On and Off Site

SERVICE, PACKAGING & DELIVERY

Pentaseal is supplied pre-compressed on rolls with a self adhesive backing to aid installation.

PART NUMBERS:

- **PENT542128 - 54mm (width) x 8 Meters Sealing Joints 2 to 12mm**
- **PENT543188 - 54mm (width) x 8 Meters Sealing Joints 3 to 18mm**
- **PENT545308 – 54mm (width) x 8 Meters Sealing Joints 5mm to 30mm**

TECHNICAL DATA	STANDARD	CLASSIFICATION
Material description		impregnated PUR flexible foam with integrated VCL
Colour		black
Impermeable to driving rain	DIN EN 1027	≥750 Pa
Impermeable to driving rain, joint intersection	DIN EN 1027	MF 1
Temperature stability range	DIN 18542	-30°C to +80°C
Classification according to	DIN 18542-2020	MF 1 (BG 1 / BG R)
Airtightness	DIN EN 12114	$a = 0.00 \text{ m}^3 / [\text{h} \cdot \text{m} \cdot (\text{daPa})^{2/3}]^{**}$
UV light and weather stability	DIN EN ISO 4892-2	MF1
Compatible with adjacent building materials	DIN 52453	requirements fulfilled
Dimension tolerance	DIN 7715 TS P3	requirements fulfilled
Building material class	DIN 4102	B 1 (fire resistant)
Thermal conductivity	DIN EN 12667	$\lambda_{10, \text{tr}} \leq 0.048 \text{ W/m} \cdot \text{K}$
U-value: window construction depth 60mm 70mm 80mm	DIN 4108-3	$U = 0.8 \text{ W} / (\text{m}^2 \cdot \text{K}) / 0.7 \text{ W} / (\text{m}^2 \cdot \text{K}) / 0.6 \text{ W} / (\text{m}^2 \cdot \text{K})$
Sound reduction		up to 56 dB in 10 mm joint
sd-value gradient (from internal to external)	DIN EN ISO 12572	≈ 40: 1 (internal ≥ 22; external ≤ 0.5)
ETA - 15/0407		CE mark since 2015
Shelf life		1 year, dry and in original packing
Storage temperature		+ 1 °C to +20°C

** no measurable air penetration according to DIN EN 12114.

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