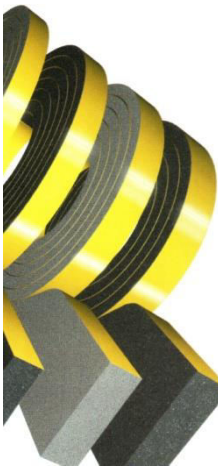
AIRSEAL

Movement Joints



Key Features

- **Weather-tight and flexible**
- **Self expanding air seal**
- **Acoustic and Thermal barrier**
- **Three performance levels**
- **Permanently elastic**
- **Self adhesive for simple fixing**
- **Can be painted directly**
- **No additional sealant required**
- **Rapid nationwide delivery**

What is AIRSEAL?

A high density, self-expanding joint filler, impregnated with chemically stabilised acrylic and backed with a self-adhesive scrim tape.

AIRSEAL is used where weather-tight expansion or structural joints are required in new or existing applications. It can be used between materials with differing coefficients of expansion. AIRSEAL will expand to fill uneven gaps giving a weather-tight or weather protected insulation seal as required (see Performance Criteria). AIRSEAL fully complies with the new UK Building Regs. Parts L and G for airtightness and acoustic performance.

Applications

AIRSEAL's advanced technology creates the preferred solution for weather-tight expansion and movement joints between pre-cast units, timber frame panels and components, seals around doorframes and windows, between corrugated roofing profiles, between roof structures and roof lights, and between ventilation and air-conditioning ductwork.

The exceptional flexibility and elasticity of AIRSEAL makes it the ideal sealant for most variably surfaced materials and components. It can be used with brickwork, concrete, plastics, steel, timber and fibrous materials. It is also ideal where potential structural movement may be expected to occur. It can also be used where vibration absorption is a critical requirement.

AIRSEAL is ideally suited for use as a primary or secondary seal in vertical and horizontal joints of building facades including concrete, brick, stone and insulation panels. Other typical applications include jointing solutions in painted metal cladding systems and curtain walling.

AIRSEAL is non-migratory and can therefore be used with any water-based acrylic or latex paints. It is compatible with most caulking materials. It can also be used in critical engineering applications such as the vibration absorption joints in automobiles between body shell and dashboard.

Performance Criteria

AIRSEAL has three levels of performance, depending on how much it is allowed to expand. The less the expansion, the higher the performance.

Performance Level:	Maximum Expansion:
1. Weather-tight, driving wind and rain	Up to 100%
2. Thermal and Acoustic	Up to 300%
3. Dust seal and air baffle	Up to 600%

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Joint Design

Firstly define the performance level required. Then calculate the compressed thickness needed to achieve that performance level within the jointing space. For example, a driving rain seal (Performance Level 1) for a gap that varies from 6-11mm, will need a 6mm compressed thickness AIRSEAL. At the widest part of the gap, it will expand from 6 to 11mm, nearly 85% of its original thickness. This meets Performance Level 1 criteria. If 5mm AIRSEAL were used, it would expand from 5 to 11mm, 120% of its compressed thickness and therefore only achieve Performance Level 2.

Individual roll widths are cut to order with a minimum cutting width of 25mm. Ideally, roll widths should be specified three times the compressed thickness. Roll width has no relevance to performance level providing these guidelines are followed.

Installation

For pre-formed spaces, insert AIRSEAL edgeways. There is no need to use excessive pressure to secure firm adhesion. AIRSEAL starts to expand almost immediately and will completely fill and seal the gap.

For new applications, AIRSEAL can easily be applied to one component, such as timber frame panels, before the next is positioned. This also applies to lap joints and corrugated roofing panels. There is no mess, no masking or mixing, and no cleaning up is required. No surface preparation or primers are needed but it is advisable to remove any oil, grease or dust from the surfaces that will be in contact with the self-adhesive layer.

AIRSEAL has a lightweight adhesive coating on one side, supported by a non-stretch polyester scrim tape to prevent stretching and improve positioning. AIRSEAL will remain permanently elastic and thoroughly weather-tight. Backpressure allows a positive seal to be maintained and minimises substrate tension. AIRSEAL will expand to fill irregular voids and gaps.

Expansion Time

Expansion begins immediately the compression is released. Total expansion time is dependent on ambient temperature, between 2 to 24 hours (see Installation Temperature Range under Technical Data).

Maintenance

As AIRSEAL is UV stabilised and is resistant to bacterial and fungal growth, it is generally maintenance free, but if required, it can be painted directly using water based acrylic or latex paints without the need for additional sealants. It can be repaired if physically damaged and will not creep or shrink in normal operating conditions.

Availability

Supplied in compressed thicknesses of 1.5, 3, 5, 6, 8, 10, 16, and 27mm. Roll lengths are 8, 6, 4, 4, 4, 4, 3 and 2m respectively. Widths are cut to order as required.

Delivery

Normally within 48-72 hours from receipt of confirmed order.

Shelf Life

The self-adhesive backing has a shelf life of 2 years. This is used for initial positioning only and does not affect the longevity or performance of AIRSEAL in use.

Technical Data

Product Classification	DIN 18542 Group 1
Fire Classification	DIN 4102, B1 – Ignites with difficulty
Carrier	High Density Polyurethane Foam
Impregnation	Long lasting, Fire Retardant, Chemically Stabilised Acrylic
Colour	Black
Tensile Strength	120 kg Pa
Thermal Conductivity	0.06 W/m ^{0}C (DIN 52616)
Operating Temperature Range	-40^{0}C to +100^{0}C
Installation Temperature Range	+5^{0}C to +40^{0}C

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