# Aerofil<sup>®</sup> 1

Low density, compressible, closed cell polyethylene filler for structural expansion joints and building facades

# **Applications**

Aerofil<sup>®</sup> 1 is a white, inert, preformed, closed cell, polyethylene joint filler suitable for structural movement joints in concrete, brick and blockwork.

Aerofil 1's low compressive strength prevents the transfer of load across joint interfaces and makes it ideal for forming soft compression joints and expansion joints in brickwork facades as recommended by BS 5628: Part 3: 1985 Use of Masonry Clause 20.4.

Aerofil 1 is equally suitable as a low compression joint filler for bridge expansion joints as specified in Department of Transport, Scottish Development Dept., Welsh Office, Dept. of the Environment for Northern Ireland, Specification for Highway Works Series 1015 where it is essential to prevent transmission of horizontal forces to the abutment walls.

Aerofil 1's low density is also useful for forming isolation joints for machine bases or similar locations. The closed cell construction also prevents moisture absorption.

Aerofil can be used on internal finishes as a gap filler or backing filler to walls, pipes, kitchen and sanitary ware before sealing with a surface sealant.

### Installation

When used in board form for an expansion/movement joint, Aerofil 1 shall be spot bonded in position using Pak Adhesive at approximately 10-12 sq m per litre to bond to the substrate after cutting to size with a Stanley knife or similar. (Full coverage 5 sq m per litre per face i.e. 2.5 m<sup>2</sup> bonded area).

# **Specification Compliance**

Department of Transport, Specification for Highway Works 1991 Clause 1015 (low compression for bridge expansion joints), Scottish Office Industry Department, Welsh Office, Department of the Environment for Northern Ireland, BS 5628: Part 3:2005 Use of masonry §5.4.3 Specification for Highway Works 2016 Clause 1015.

### **Advantages**

- Low compression accepts temperature cycles with minimal load transfer.
- **Closed cell** prevents water absorption.
- Recovery 90% after release of load.
- **Chemical resistant** inert to most dilute acids and alkalis, resistant to oil and hydrocarbons.
- **Easily worked** can be cut with sharp knife, economical in use.
- **Board form** for structural expansion joints in concrete, brick and blockwork.
- **Cut Strip form** in a range of sizes with rip-off edge to form neat sealant rebate.

**N55**Plus



#### **Expansion Joint in Masonry Wall**

Details shown are typical illustrations only and not working drawings. For assistance with working drawings and additional technical advice please contact GCP Technical Services.

# Supply

Aerofil 1 Boards Thickness	0.8 m x 2.0 m (1.6 m²) 10 mm, 20 mm, 25 mm,	
	50 mm	
Ancillary Products Pak Adhesive	Pak Adhesive 5 litre can (Full coverage approx. 5 m <sup>2</sup> per litre - 2.5 m <sup>2</sup> bonded area)	

#### **Complementary Materials**

Vertiseal®, Paraseal® & 2 part polysulphide sealants

# **NBS Specification Clause**

Refer to Clause E40 520.

# **Health and Safety**

There is no legal requirement for a Safety Data Sheet (SDS) for Aerofil 1. For health and safety questions on these products please contact GCP Applied Technologies Products Ltd.

For Pak Adhesive and GCP Sealants read the product label and SDS's before use. Users must comply with all risk and safety phrases. SDS's can be obtained from GCP Applied Technologies or from our web site at gcpat.com.

Physical Properties			
Property	Typical Results	Test Method	
Density	28 Kg/m³ ± 10%	ISO 845	
Water absorption (after 7 days)	vol. 1%	ISO 2896	
Chemical Resistance	Inert to most dilute acids and alkalis, resistant to oil and hydrocarbons		
Compressive strength @ 50% strain	120 kN/m² ± 30%	ISO 3386-1	
Operating Temperatures	-5°C to +100°C	Internal	

All test results shown in this data sheet are determined under laboratory conditions and with the product sample taken directly from stock in its original packing without any alteration or modification of its component parts.

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