

Technical Data Sheet

Product : Compriband VSA

Description

Compriband VSA is a BBA approved special purpose bitumen impregnated open cell flexible polyurethane foam sealant strip which, when used under compression by 80% provides a high performance waterproof(>1000 Pa) seal. The product is supplied in roll form pre-compressed and ready for immediate use with a self-adhesive backing. After positioning, the material expands to find its own level and creates a permanent elastic seal. The product remains flexible throughout its life and responds to the continual expansion and contraction cycles caused by thermal and structural movement.

Typical Uses

Compriband VSA is designed for use internally or externally for the linear sealing of movement joints in a wide variety of demanding construction and civil engineering applications including those where running water is involved, for example:

Roadway and waterway joints
Foundations, concrete sections and viaducts
Concrete sewer pipe joints
Expansion joints in hardtops, concrete supports and partition walls
Noise barriers
Steelwork
Container and bodywork construction

Storage

Store rolls horizontally and in original carton between +1°C and +25°C in dry conditions and away from direct sunlight. Shelf life approximately 12 months.

Surface Preparation

No special surface preparation or primers are required but contact surfaces must be smooth parallel and cleaned to remove dust, dirt, mortar, other loose material, grease or oils. In the case of porous surfaces and where a water/weather tightness is required or when standing water is likely to be encountered in service then the use of one or two coats of Compriband Primer on the joint surfaces is recommended.

Application

Care must be taken not to stretch the material, especially where joined or around bends and corners. A continuous seal can be provided by forming taper lap joints. Instructions for use are enclosed in each carton supplied. Select the correct size of tape after determining the joint dimensions. Cut the tape 10 mm per metre oversize. To improve finished appearance inset the tape 1-2 mm from the front of the joint. For vertical joints start at the bottom butt jointing as required. Ensure all joints are tightly formed by positioning correctly and shuffling as necessary with appropriate tools e.g. pallet knives or scraper's before tape expansion has progressed too far. Adhesive tack can be impaired if applied to a wet joint. In such circumstances and also when installed under cold conditions it may be necessary to wedge temporarily until expansion renders the tape self supporting. The installed tape expands at a rate dependent on the ambient temperature(see table), expanding faster in warmer conditions. If required the rate of recovery may be delayed by cooling immediately prior to installation. Alternatively, the recovery can be accelerated by warming the material after installation using an indirect heat source.

Temperature °C	Approximate Recovery Time*
3	-
10	6 hrs**
20	20 min
30	15 min

* To 80% compression in joint

** When stored at 20°C but applied at 10°C

Availability – Standard Sizes

Size	Gap size	Recommended tape width/joint depth - mm	Expanded thickness mm	Roll Length metres
2	2	10	10	8
3	2-3	10	15	6
4	3-4	15	20	6
5	4-5	15	25	4
6	5-6	15	30	4
8	7-8	20	40	4
10	9-10	25	50	4
12	10-12	30	60	3
16	14-16	40	80	3
20	17-20	50	100	3
25	22-25	60	120	3

All dimensions are subject to tolerances. If dimensional tolerances are of particular interest please consult the sales office.

Seal Performance Requirements and Compression

The functional requirement of Compriband VSA joint seals are governed by the compression factor as shown:

Compression Factor	Seal Quality	% Fully Expanded Size
Non compressed	-	100
2	Dust tight	50
4	Rain tight	25
5	Water tight	20

Physical Properties¹

Characteristic	Test Method	Classification/Result
Approval Status	-	BBA certificate no. 95/3189
Fire Resistance Class	DIN 4102 -1	B2
Impregnation System	-	Bitumen
Density	-	~150Kg/m ⁻³

Table continued over →

Characteristic	Test Method	Classification/Result
Colour	-	Black
Tensile Strength without adhesive layer	ISO 1798	>160 kPa
Elongation without adhesive layer	ISO 1798	>170%
Residual deformation		3%
Load – bearing capacity		18Kg/cm max
Coefficient of Thermal Conductivity	DIN 52 612	50m W/m . K
Temperature Resistance	-	-20 °C to + 85 °C
Resistance to plant roots	DIN 4062	Meets requirements
Mould resistant		Resistant
Chemical Resistance		See separate table
Storage Temperature	°C	+1°C to +25 °C
Service Temperature	°C	-20°C to +85 °C

*According to specific conditions provided by manufacturer(available on request)

¹ All performance figures quoted are averages and are subject to tolerances

Table of Chemical Resistance

Test condition→	Conc. %	1d @ 20°C	7d @ 20°C	21d @ 20°C	30d @ 20°C	1d @ 75°C	21d @ 55°C	14d @ 75°C
Chemical ↓								
Sodium hydroxide	3	✓	✓	✓	✓	0	0	
	5	✓	✓	✓	✓	+	0	0
	10	✓	✓	✓	✓	+	0	0
Hydrochloric acid	3	✓	✓	✓	✓	✓	+	+
	5	✓	✓	✓	✓	+	+	+
	10	✓	✓	✓	✓	+	+	+
Sulphuric acid	5	✓	✓	✓	✓	+	+	+
	10	✓	✓	✓	✓	✓	0	0
	20	✓	✓	✓	✓	✓	0	0
Nitric acid	1	✓	✓	✓	✓	✓	✓	+
	3	✓	✓	+	+	+	0	0
	5	✓	+	+	0	0	0	0
Acetic acid	5	✓	✓	✓	✓	✓	✓	✓
	10	✓	✓	✓	✓	✓	✓	✓
Ammonia	5	✓	✓	✓	✓	✓		
	10	✓	✓	✓	✓	✓		
Citric acid	10	✓	✓	✓	✓	✓	✓	✓
Lactic acid	5	✓	✓	✓	✓	✓	✓	✓
Oxalic acid	10	✓	✓	✓	✓	✓	✓	✓
Calcium Carbonate	Sat'd	✓	✓	✓	✓	✓	✓	✓
Trisodium phosphate	10	✓	✓	✓	✓	✓	✓	✓
Urea	10	✓	✓	✓	✓	✓	✓	✓
Sea water	-	✓	✓	✓	✓	✓	✓	✓
Sea water	1	✓	✓	✓	✓	✓	✓	✓
SUNIL - detergent	1	✓	✓	✓	✓	✓	✓	✓
PRIL - detergent	1	✓	✓	✓	✓	✓	✓	✓
LENSEX	1	✓	✓	✓	✓	✓	✓	✓
Amyl acetate	Bitumen impregnate slowly leaches out							
Lubricating oil	Bitumen impregnate slowly leaches out							
Floor wax	Bitumen impregnate slowly leaches out							
Methyl alcohol	Bitumen impregnate slowly leaches out							
Ketones	Bitumen impregnate slowly leaches out							
Mineral oil derivatives	Not resistant							
Benzenes(all types)	Not resistant							
Aromatic hydrocarbons and esters	Not resistant							

KEY:
d = Day
✓ = Fully resistant
0 = Destroyed
+ = Slow deterioration, hardening and embrittlement

Health and Safety

The product is not regarded as having any significant associated hazards. No special precautions are necessary but the use of gloves is recommended during handling and installation of the product, especially for persons with sensitive skin. Wash hands immediately after use. Material Safety Data Sheet is available upon request.

Issued by:

Alfas Industries Ltd (Tech Spec Division)
Bentall Business Park
Glover, District 11
Washington
Tyne & Wear
NE37 3JD

Tel: 0191 419 0505
Fax: 0191 419 2200
e mail: techspec@alfas.com

Alfas Industries Ltd (Trade Division)
The Scotlands Industrial Estate
Coalville
Leicestershire
LE67 3JJ

Tel: 01530 835722
Fax: 01530 510251
e mail: trade@alfas.com

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