



DACO-KSD-B

Self-Adhesive, SBS Modified Bituminous Vapour Control Layer

Introduction

DACO-KSD-B is a cold-applied, self-adhesive bituminous vapour control layer which is saturated and coated with high quality SBS (Styrene-Butadiene-Styrene) modified bitumen. It has a glass fibre and aluminium composite reinforcement, separating foil on the underside and is finished on the top side with quartz sand. In addition, the product features integrated 'safe-seal' lap technology, facilitating secure, safe and efficient sealing of side-laps.

Product Description

DACO-KSD-B is designed for use as a high-performance vapour barrier, and is ideal for use within cold-applied roofing systems. It is typically used within BÖRNER's self-adhesive or torch-safe specifications and can be applied to a wide range of substrates, including plywood, metal and concrete decks, subject to use of a suitable primer as required. The product features quartz sand on the top side which helps ensure firm adhesion with the subsequent thermal insulation. Joints and overlaps can also be rapidly sealed by means of (hot gas) welding where required.

Product Features

- Flame free, self-adhesive application
- Excellent low temperature flexibility at -25°C
- Aluminium reinforced
- SBS modified bitumen
- Reliable, environmentally friendly material
- Integrated 'Safe-Seal' laps to enable homogenous, efficient sealing of side laps
- Tested as part of a system to achieve Broof Test 4 fire classification as certified by Warringtonfire

Application

DACO-KSD-B should be installed in accordance with manufacturer recommendations and all relevant national standards and codes of practice, including BS 8217: 2005 – the code of practice for reinforced bitumen membranes for roofing.

Roofing contractors should also be fully conversant with the guidelines set out in the National Federation of Roofing Contractors (NFRC) 'Safe2Torch' campaign. If hot air guns are used during application, operatives should be competent, conversant and capable of using such items in a safe and responsible manner. Care must also be taken when using hot air guns in close proximity to combustible materials, decorative coatings and heat sensitive materials.



Preparation

In order to install the **DACO-KSD-B** membrane correctly, ensure that the surface is dry, free of oil, fat and dust and other impurities. All substrates and detailing areas should be primed with **Sprayfix Universal Primer** which has been specially formulated to react with the self-adhesive coating in order to create a strong bond.

We recommend that self-adhesive membranes such as **DACO-KSO+** are rolled into position and allowed to settle prior to their application. The membrane should always be installed with a minimum 80mm joint overlap. Ambient and surface temperatures during the application should be at least + 5°C.

Installing the Membrane

When applying **DACO-KSD-B** on timber decks the membrane should be loosely fitted and mechanically fixed (hidden). The amount and position of the fixings (e.g. galvanised roofing nails) depends on the requirements specified in the regulations. The width of the joint overlaps should be at least 8 - 10 cm. In order to adhere the joint overlaps, the separating foil on the bottom side has to be removed in the area of the longitudinal seam or folded in. If a half or a third of distance between rows of fixing material is necessary in the corner or border areas of the roof surface, the fixing rows have to be covered with an off-cut of **DACO-KSD-B**, which should be at least 10 cm wide.

To lay **DACO-KSD-B** onto a steel deck, the separating foil on the bottom side must be completely removed and the membrane should be adhered with a joint overlap of at least 8 - 10 cm. The overlap of the longitudinal seam should also rest on the top chord of the steel deck. To obtain air tightness in the area of the cross-seams on profiled steel-sheets, please consult the relevant national technical standards.

Irrespective of the sub construction all joint overlaps should be generally unrolled with a draw roll. To adhere **DACO-KSD-B** on mineral building materials (e.g. concrete, plaster etc.) or on dusty, oily and greasy surfaces, priming with TN Bitumen Prime Coating is necessary. The surface must also be primed if ambient and surface temperatures are below +5°C. Regardless of the surface a makeshift "emergency sealing" can be achieved in the area of the joint and seam overlap by means of (hot gas) welding. Any subsequent layers should therefore be added one at a time.

When using **DACO-KSD-B** as part of a temporary, provisional or emergency roof it is important to have a minimum slope of 2 %. The roof surface should also be checked at regular intervals.

During the application of **DACO-KSO+** we recommend using a weighted roll bar or tube in order to help provide a uniform, strong bond. After application, the installed membrane should be rolled again to remove any entrapped air and further consolidate the bond with the substrate.

Safe-Seal Lap Methodology

The product's 80mm wide side selvedge consists of two key elements: The first 40mm of selvedge (the inner element) features a self-adhesive release film which, once removed, enables the adjacent membrane to be securely bonded without the need for heat – only a pressure roller is required. The outer 40mm of the selvedge is then bonded in a traditional manner using either hot air or naked flame, depending on the type of system being installed.

This 'safe-seal' lap technology not only dramatically reduces the risk of any naked flame or heat penetrating through to a potentially combustible substrate (e.g. insulation), it also allows for more efficient installation as only half of the selvedge needs to be manually welded using a hot air gun or torch.

Any overlaps on the mineral chippings must be sealed with a hot air blow dryer (>3000 W). All joint overlaps should be unrolled with a draw roll.

During installation it is important to ensure that a visible bead of bitumen exudes from all side and end laps.

Chemical Resistance

DACO-KSD-B is water-resistant and is resistant to watery solutions of salt, diluted non-oxidising acids and bases. Aliphatic and aromatic hydrocarbons, as well as chlorine hydrocarbons, oils and greases may loosen the product and should therefore be avoided.

Storage

Store in a cool, dry place and protect from direct sunlight. The product should be installed within 3 months of delivery, otherwise the surface must be primed with a suitable primer (contact BÖRNER for more details).

Health and Safety

Health and Safety should be observed at all times in accordance with HSE and industry guidance. Specific Risk Assessments and Method Statements should be produced by contractors where necessary to ensure Working at Heights, Fire Safety and Manual Handling rules are compliant with current law and regulations. Health and safety data sheets are available for all materials on request from BÖRNER Technical Service Department.

Availability

Product Name	Product Code	Roll Dimensions (m)	Weight (kg/m ²)
DACO-KSD-B	TN578346	10 x 1.08	3.3

Performance and Key Properties

Properties	Test Method		Declared Performance
Length	DIN EN 1848-1	m	≥ 10.00
Width	DIN EN 1848-1	m	≥ 1.08
Straightness	DIN EN 1848-1	mm/10 m	< 20
Mass per unit area	DIN EN 1849-1	kg/m ²	3.3 (± 5%)
Thickness	DIN EN 1849-1	mm	2.50 (± 7 %)
Water tightness	DIN EN 1928 Method B	-	passed at 100 kPa
Tensile properties: maximum tensile force	DIN EN 12311-1	N	≥ 1000/1000
Tensile properties: elongation	DIN EN 12311-1	%	≥ 2/2
Flow resistance at elevated temperatures	DIN EN 12311-1	° C	≥ + 100
Flexibility at low temperatures	DIN EN 1109	° C	≤ - 25
Water vapour transmission properties	DIN EN 1931	m	sd ≥ 1.500
External fire performance	Fire tested as part of a system in accordance with EN 13501-5 and ENV 1187:2002, Broof Test 4 as certified by Warringtonfire*		
Reaction to fire	DIN EN 11925-2	-	Class E according to DIN EN 13501-1

*As outlined in Warringtonfire Classification Report Nos. 19901D & 19901H

Quality Assurance

DACO-KSD-B is manufactured following ISO 9001: 2008 Quality Management System and Environmental Management System approved to ISO 14001: 2004.

Technical Service and Other Products

Specialist advice and information on other compatible products can be found at <http://www.borner.ie>