



a.b.e.® Construction Chemicals **flexothane 1**

ELASTOMERIC JOINT SEALANT

DESCRIPTION

flexothane 1 is an elastomeric one-component low-modulus moisture-curing polyurethane sealant.

USES

flexothane 1 is designed for sealing of expansion and contraction joints, external walling cladding joints, sealing of window and door joints, sealing of connecting joints between wall and windows. Good adhesion properties on most common building materials.

ADVANTAGES

- One-component, easy to gun
- Non-sag consistency
- Non-sticky/does not pick up dirt.
- Good adhesion on the most common construction materials.
- Over paintable with water, solvent based paints
- Good weathering and ageing properties.
- Can be applied vertically or horizontally

TYPICAL PHYSICAL PROPERTIES OF CURED MATERIAL

Chemical basis	Polyurethane
Cure mechanism	Moisture curing
Specific gravity	1.27
Tack free time at 23°C and 50% R.H	120 minutes
Curing rate at 23°C and 50% R.H.	> 2.00mm/24hr
Shore A hardness (DIN 53505)	25
Elongation at break (DIN 53504)	> 600%
Tensile strength	< 0.4N/mm ²
Elastic recovery (DIN EN 27389)	85%
Admissible joint movement	25% of average joint width
Application temperature	5°C to 35°C
Service temperature	-40°C to +80°C

PREPARATION OF JOINTS

Thorough preparation of joints is essential if a satisfactory seal is to be obtained. For concrete, stone or masonry surfaces, all traces of dust, laitance, mould release oil, previous sealant and all other foreign materials must be removed by sandblasting or mechanical abrasion, followed by blowing out the joints with dry, oil free compressed air. For glass, metal and other non-porous surfaces, ensure these are free of coatings, oils and grease by cleaning with a suitable solvent. Suitable solvents include **abe® thinners no. 3**, IPA or MEK. Ensure the solvent is compatible with the substrate prior to cleaning.

PRIMING OF JOINTS

flexothane 1 generally has good adhesion properties without the use of a primer on most common building substrates. However, it is advisable to do a preliminary check to ensure adhesion to the substrate.

Porous substrates, such as wood, concrete, and fibre cement, should be primed with **flexothane** porous primer U-110. Using a brush spread a thin layer of primer into prepared joints, allow at least 30 minutes for the primer to dry. In the case of an excessively porous surfaces, a second coat should be applied. Sealant must be applied within 5 hours of priming. Non-porous surfaces such as glass, ceramics and metals must be primed with **flexothane** non-porous primer U-120. Surfaces must be wiped with a clean dry cloth moistened with **flexothane** non-porous primer U-120.

Note: **flexothane 1** has been performance certified incorporating the use of primers. The use of primers can prevent the formation of bubbles and chemical reaction which may be caused by excess moisture, excessive heat and thermal movement during and after the application of sealant. Another important function of priming is the guaranteed long term adhesion of **flexothane 1** to joints. The primers also prevent staining in the case of porous substrates as well as migration of plasticizer to the substrates/sealant interface.

SPECIFICATION COMPLIANCE

flexothane 1 complies with the requirements of DIN 1854/F and ISO 11600/F/25LM.

FILLETS

Where a triangular pointing fillet cannot be avoided, the fillet must be applied such that it is not less than 10 mm across the face and with a rounded (convex) surface. Where there is a gap greater than 5 mm between the adjoining surfaces, a back-up material must be inserted, and the sealant applied in a sufficiently large fillet to ensure adequate adhesion area on each surface.

BACK-UP MATERIAL

Suitable back-up materials must be used to adjust sealant depth in the joint. **abe® dura.®cord** is self-releasing material, but if **abe® dura.®sheet**, soft-board or cork has been used as the joint filler and the sealant is going to be applied without **abe® dura.®cord** a plastic strip bond breaker (polyethylene) must be placed on the filler surface before sealant is applied.

PROTECTION OF ADJACENT SURFACES

Masking tape applied to areas adjacent to the joint will protect them from contamination and enable the joints to be finished to a neat line. The masking tape should be applied after the joint has been prepared, prior to any priming or sealing operation and removed after all finishing and tooling operations have been completed, but before the sealant has cured.

MIXING

Not required.

COVERAGE

THEORETICAL COVERAGE FOR ESTIMATING PURPOSES	
Cross section of joint (mm)	m per 310ml cartridge
25 x 12	1,03
20 x 12	1,29
12 x 12	2,15
6 x 6	8,61
NOTE: Allow 200 ml of flexothane porous primer U-110 for approximately 12 cartridges of flexothane 1 . Allow 200 ml of flexothane non-porous primer U-120 for approximately 24 cartridges of flexothane 1 .	

APPLICATION

Application can be by hand or pressure-operated gun. It is essential to ensure complete contact between the sealant and the joint surfaces.

TOOLING

Tooling of sealants is necessary for complete air-free filling of voids and to assist in making contact to the surfaces to which the sealant is applied. The surfaces of the joint should be smoothed with a clean knife or spatula. A mild solution of liquid soap and water can be sprayed onto the tooling spatula if required.

CLEANING

Tools should be cleaned immediately after use, and before the material has set, with **abe® super brush cleaner** followed by washing with soap and water.

PAINTING OVER SEALANT

It is not recommended that a flexible sealant be over-coated by less flexible coatings as joint movement will cause rupturing of the coating. The migration of plasticisers from the sealant into the coating will manifest itself in terms of non-drying characteristics of the coating and result in excessive dirt pick-up. Based on the outcome of preliminary tests the sealant may be over painted with a good quality water or solvent based paint.

APPLICATION TEMPERATURE

5°C to 35°C

MODEL SPECIFICATION

Single-pack, moisture-cured, low-modulus polyurethane joint sealant.

The sealant will be **flexothane 1**, a single-component, moisture-cured, low-modulus polyurethane sealant applied in accordance with the recommendations of **a.b.e.® Construction Chemicals**, including **primer U 110** for porous substrates or **primer U120** for non porous substrates where necessary. Do NOT use in swimming pools.

PACKAGING

310 ml cartridges packed 12 per box.



a.b.e.® is an ISO 9001:2008 registered company
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CHEMICAL SOLUTIONS FOR THE
CONSTRUCTION MATERIALS INDUSTRY
DATE UPDATED: 18/10/12

HANDLING & STORAGE

This product has a shelf life of 12 months if kept in a dry cool place in the original packaging. In more extreme conditions this period might be shortened.

HEALTH & SAFETY

Uncured **flexothane 1** is toxic and should not be allowed contact with skin and eyes. The use of gloves and eye protection is advised. Splashes into eyes should be washed immediately with plenty of clean water and medical advice sought. Ensure the working area is well ventilated during application and drying. Always wear gloves when working with the material and avoid excessive inhalation and skin contact.

Cured **flexothane 1** is inert and harmless.

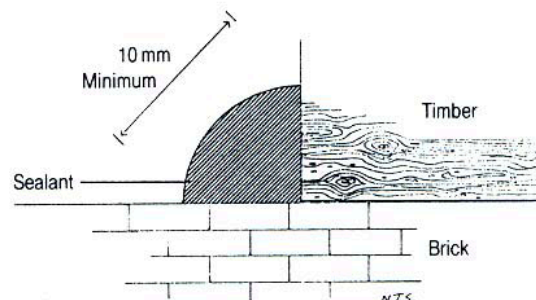
IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.® Construction Chemicals** endeavors to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot - because **a.b.e.®** has no direct or continuous control over where and how **a.b.e.®** products are applied - accept any liability either directly or indirectly arising from the use of **a.b.e.®** products, whether or not in accordance with any advice, specification, recommendation, or information given by the company.

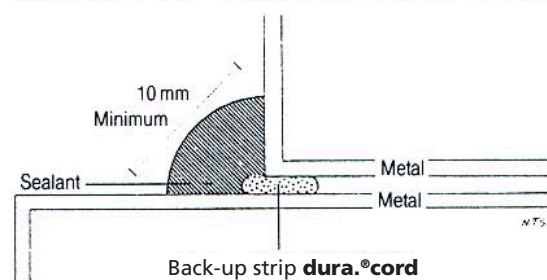
FURTHER INFORMATION

Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements. **a.b.e.® Construction Chemicals** has a wealth of technical and practical experience built up over years in the company's pursuit of excellence in building and construction technology.

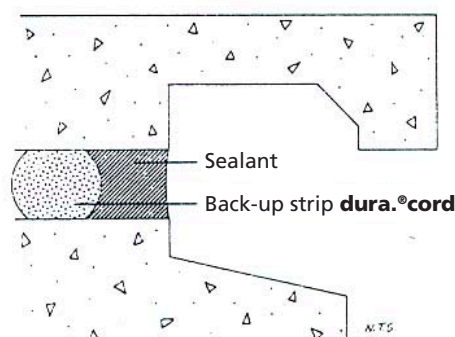
EXAMPLE OF VERTICAL JOINT



EXAMPLE OF VERTICAL METAL JOINT



PLAN VIEW OF VERTICAL EXPANSION JOINT



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