



a.b.e.[®] Construction Chemicals **flexothane EPU** Epoxy Polyurethane

ABRASION RESISTANT, EPOXY MODIFIED, POLYURETHANE JOINT SEALANT

DESCRIPTION

flexothane EPU is a two-component abrasion resistant, tough, epoxy-modified polyurethane joint sealant for use where limited joint movement is expected and resistance to chemical spills is a prerequisite.

USES

Low movement joints in:

- Factory and warehouse floors.
- Chemical plants.
- Culverts.
- Spillways.
- Commercial centres.
- Petrol station forecourts.
- Airport aprons and hangars.
- Fuel depots.
- Bunded areas.
- Sea walls.

ADVANTAGES

- Tough material, withstands heavy traffic, high abrasion resistance for use in culverts and sea walls.
- Good chemical resistance to a range of chemicals.
- Can be installed to a flush finish to protect the joint arises in factory or warehouse applications.
- Applied to vertical and horizontal joints.

JOINT GEOMETRY

flexothane EPU can be used for joints from 5 mm to 50 mm. Where the joint width is less than 25 mm and the sealant is supported on the concrete, the depth must not be less than 15 mm. In instances where a flexible joint filler is used, the minimum depth should be 20 mm.

SURFACE PREPARATION

Thorough preparation of joints is essential if a satisfactory seal is to be obtained. For concrete surface all traces of dust, laitance, mould oil, any previous sealant and all other foreign material must be removed by mechanical grinding, followed by blowing out with dry oil free compressed air. All surfaces must be completely dry.

TYPICAL PHYSICAL PROPERTIES

Form	Two-component
Base	White paste
Curing agent	Grey paste
Mixed colour	Light grey
M.A.F.	10%
Reaction	Chemical cure
Pot life	1 hour at 20°C
Light traffic	24 hours
Heavy traffic	48 hours
Shore A hardness (at 20°C)	± 70

CHEMICAL RESISTANCE (OCCASIONAL SPILLAGE)

Alcohols	High
Alkalis	High
Chlorinated hydrocarbons	Low
Mineral oil	High
Hot detergent solutions @ 60°C	High
Hydraulic fluid (Skydrol)	Poor
Live steam	High
Mineral acids (25%)	High
Vegetable oils	High
Kerosene	High
Xylene	Low

COVERAGE FOR ESTIMATING PURPOSES

Joint size in mm	Litre per metre
10 x 15	0,150
20 x 10	0,200
20 x 15	0,300
20 x 25	0,500
25 x 25	0,625
30 x 25	0,750
30 x 30	0,900
40 x 25	1,000
40 x 40	1,600
50 x 25	1,250
50 x 50	2,500

On average 1 x 250ml tin of **epidermix 326** is sufficient for 6 tins/12 litres of sealant. No allowance has been made for wastage or to varying porosity of the concrete to which it is being applied.

PROTECTION OF SURFACES

Masking tape applied to areas adjacent to the joint will protect them from smearing and enable the joints to be finished to a neat line. The 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.

BONDING/PRIMING

Joints to be sealed using **flexothane EPU** do not usually require priming. The exception being where the sealant is subject to contact immersion. In this circumstance, use **epidermix 326** as the primer. The primer film must be allowed to lose its solvent (about 30 minutes drying) before the sealant is applied. The primer open time is 4 hours. If, however, the primer is allowed to dry longer than 6 hours, the surface must be re-ground and re-primed.

BACK UP MATERIAL

abe® dura.®cord is a self-releasing material, but if soft-board is used as the joint filler, a plastic strip bondbreaker must be placed on the filler surface before the sealant is applied. Under a pressure head of liquid, backing cord should be at least 2,5 times greater in diameter than the width of the joint slot.

MIXING

Add the activator to the base and mix thoroughly using a suitable paddle attached to a slow-speed drill (approximately 300 r/min). Mixing should take at least 5 minutes.

NOTE: If the material is not mixed properly its performance will be impaired.

COVERAGE

Refer to table for estimated coverages.

APPLICATION

Application to primed surfaces can be by hand operated or pneumatic gun.

CLEANING OF TOOLS

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

PROTECTION ON COMPLETION

The finished sealant should be protected from traffic until the sealant has fully cured. Overpainting of the sealant is not recommended because of the inability of paint films to accept movement.

APPLICATION TEMPERATURE

Surface and ambient temperature must be at least +5°C and rising, ideally between 20°C and 30°C. Lower temperatures will affect the curing period.

MODEL SPECIFICATIONS

Two-component, gun-grade, epoxy-modified polyurethane sealant for factory floors where small hard wheels are used, and abrasion and chemical resistance is required.

The sealant will be **flexothane EPU**, a two-component, epoxy-modified polyurethane applied in accordance with the recommendations of **a.b.e.® Construction Chemicals**. The sealant will have a Shore A hardness of ± 70 and a movement accommodation factor of 10%.

PACKAGING

flexothane EPU is supplied in 2 litre kits.



a.b.e.® is an ISO 9001:2008 registered company
PO Box 5100, Boksburg North, 1461, South Africa
Website: www.abe.co.za | Tel: +27(0) 11 306 9000

Durban | Johannesburg | Cape Town | Port Elizabeth | East London | Bloemfontein | George

a.b.e.® is a Chryso Group Company



DATE UPDATED: 05/06/14

HANDLING & STORAGE

flexothane EPU has a shelf life of 12 months when stored in the original containers in a cool dry place. In more extreme conditions this period might be shortened.

HEALTH & SAFETY

Uncured **flexothane EPU** is toxic and flammable. Ensure the working area is well ventilated during application and drying. Avoid flames in the vicinity. Always wear gloves and eye protection when working with the material and avoid excessive inhalation and skin contact. If material is splashed in the eye wash with plenty of clean water and seek immediate medical attention.

Cured **flexothane EPU** 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.



a.b.e.® is an ISO 9001:2008 registered company
PO Box 5100, Boksburg North, 1461, South Africa
Website: www.abe.co.za | Tel: +27(0) 11 306 9000
Durban | Johannesburg | Cape Town | Port Elizabeth | East London | Bloemfontein | George

a.b.e.® is a Chryso Group Company

CHRYSO
CHEMICAL SOLUTIONS FOR THE
CONSTRUCTION MATERIALS INDUSTRY

DATE UPDATED: 05/06/14