



a.b.e.[®] Construction Chemicals **dura.[®] joint flexband** high performance joint bandage

SEALING OF CONSTRUCTION AND EXPANSION JOINTS

DESCRIPTION

dura.[®] joint flexband is a high performance waterproofing bandage composed of functionalized thermoplastic elastomers for a variety of applications.

The system for installation includes **dura.[®] joint flexband**, **dura.[®] joint flexband adhesive** (FDA compliant), **dura.[®] joint HDPE strip**, **dura.[®] joint flexband solvent wipe**, bond breaking tape and the appropriate sealant for various substrates.

Other auxiliary products where required include **dura.[®] joint waterstop** range and **dura.[®] sheet** joint former.

USES

Waterproofing of expansion and construction joints. Applications in critical joint areas with high or frequent movement include:

- High movement joints (expansion)
- Construction/contraction joints
- Joints subject to chemical attack
- Repair of failed joints
- Repair/sealing to structural cracks
- Water retaining structure joint sealing

ADVANTAGES

- Durable resilient seal
- Accepts multi-dimensional movement
- Can be applied to damp substrates (no free standing water)
- Can be used on a variety of substrates
- Can be used beneath asphalt
- Excellent application characteristics
- Can be used in contact with potable water
- Resistant to a wide range of chemicals
- Available in several widths
- Specification Compliance BS6920

SURFACE PREPARATION

The substrate must be structurally sound. Loose or unsound concrete must be removed and rectified where required. Surfaces must be entirely free of oil, grease, paint, corrosion deposits, dust, laitance or other surface deposits. The surface should be prepared by wire brushing, grit blasting, grinding, needle gun or high pressure water blasting to produce a fine exposed aggregate surface.

PHYSICAL PROPERTIES: (approx.) (2mm thick bandage)

Test	Method	Result
Burst pressure, max.	Internal	>5.0 bar
Breaking load longitudinal	DIN EN ISO 527-3	14.0 N/mm ²
Breaking load lateral	DIN EN ISO 527-3	14.0 N/mm ²
Extension break longitudinal	DIN EN ISO 527-3	1000%
Extension break lateral	DIN EN ISO 527-3	1000%
Power absorption at 25% elasticity lateral	DIN EN ISO 527-3	5.6N/mm
Power absorption at 50% elasticity lateral	DIN EN ISO 527-3	6.5N/mm
Resistance to water pressure	DIN EN 1928 (method B)	>5.0 bar
Resistance to tear longitudinal / lateral	DIN EN 12310-2	200N / 200N
UV-Resistance, min.	DIN EN ISO 4892-3	6500 h
Fire classification	DIN EN 4102	B2

Temperature resistance		-30°C to +90°C
Shore A		87 (approx.)
Colour (may vary batch to batch)		Grey
1 mm lap bond @ 340°C - Peel strength after 24 hours		145N/25mm
2 mm lap bond @ 370°C - Peel strength after 24 hours		240N/25mm
Thickness (mm)		*1 and 2
Widths (mm)		150, 200, 250, 300 & 350

*1 mm available on special request

CHEMICAL RESISTANCE		
After 7 days submersion at 20°C (+ = resistant)		
Hydrochloric acid 3%	Internal	+
Sulphuric acid 35%	Internal	+
Citric acid 100g/l	Internal	+
Lactic acid 5%	Internal	+
Potassium hydroxide 3%/ 20%	Internal	+ / +
Sodium hypochlorite 0.3g/l	Internal	+
Salt water (20 g/l sea water salt)	Internal	+

PRIMING

Priming for the **dura.®joint flexband adhesive** is not normally required. If the concrete is friable or very porous a primer may be required. Contact **a.b.e.® Construction Chemicals** for a site inspection and recommendations. See **dura.®joint flexband adhesive** product data sheet.

MEMBRANE PREPARATION

Cut the **dura.®joint flexband membrane** to the required length, then clean the faces to be bonded by wiping with **dura.®joint flexband solvent wipe**. Allow the surfaces to dry before bedding it into the **dura.®joint flexband**

adhesive. If left for more than 8 hours, the membrane edges must be cleaned again and allowed to dry.

Prepare **dura.®joint flexband** lap joints in advance by allowing a minimum of 100 mm overlap. The joints can only be made by using a hot air gun.

To ensure intimate contact between bonded laps, place the **dura.®joint flexband** on a clean flat laminated timber board and apply pressure to the joint as it is being formed using a Leister roller to ensure maximum bond.

All lap joints are to be carried out prior to installation.

For welding lap joints the following equipment is required:

Leister Triac AT – Hot air heat gun

Nozzle: 40 mm Roller: 40 mm wide 30 mm diameter

1 mm **dura.®joint flexband** temperature setting of 340°C

2 mm **dura.®joint flexband** temperature setting of 370°C

MIXING – EPOXY ADHESIVE

Refer to the **dura.®joint flexband adhesive** product datasheet.

APPLICATION

Mask the area where the **dura.®joint flexband adhesive** is to be placed i.e. 25 mm on the concrete surface and extended 50 mm from the edge of the **dura.®joint flexband membrane** inwards.

Where support below the **dura.®joint flexband** is required, position the **dura.®joint HDPE strip** to centrally straddle the expansion joint.

A minimum thickness of 1 mm **dura.®joint flexband adhesive** applied to the concrete surface is required.

After spreading the **dura.®joint flexband adhesive**, remove the innermost masking tape from both sides of the joint. Immediately place the **dura.®joint flexband membrane**, and using a hard roller, firmly roll the bandage to allow extrusion of the **dura.®joint flexband adhesive** beyond the edges of the membrane. Apply a second layer of **dura.®joint flexband adhesive** on top of the first layer to give a total **dura.®joint flexband adhesive** thickness of 2 mm and finish using a steel trowel. Remove the centrally placed masking tape from the **dura.®joint flexband membrane**. Remove the outer masking tape and featheredge the **dura.®joint flexband adhesive** by using a paint brush to chamfer any sharp edges/corners that may cut the membrane. Concrete surface profile and irregularities will influence the consumption rate of the **dura.®joint flexband adhesive**. See method statement for process.



LIMITATIONS

- Do not apply to concrete substrates that are less than 28 days old.
- Do not apply to wet substrates (having free standing water).
- Do not apply in rain or wet conditions or at temperatures below 10°C.
- Do not fully immerse the joint system until full cure is achieved (7 days at 25°C, lower temperatures require a longer curing period).
- Do not expose the joint to traffic without the use of a suitable cover plate or protection.

COVERAGE

dura.®joint flexband as per roll length excluding overlaps
dura.®joint flexband adhesive:
Approximate theoretical quantities for estimation:
2 mm thick/m² = 2 litres of product.

CLEANING

Tools may be cleaned with **abe® super brush cleaner** immediately after use before the **dura.®joint flexband adhesive** has had time to cure, otherwise mechanical means will be required.

MODEL SPECIFICATION

dura.®joint flexband high performance waterproofing bandage system composed of functionalized thermoplastic elastomers.

For sealing of joints as per manufacturers requirements.

PACKAGING

dura.®joint flexband is supplied in 20 metre rolls, see table for available widths.

dura.®joint HDPE strips: 3 mm thick, 50 & 75mm wide x 3m long

dura.®joint flexband adhesive: 2 litre kits

dura.®joint flexband solvent wipe: 5 litre container

abe® super brush cleaner: 5 litre container

HANDLING AND STORAGE

dura.®joint flexband Maximum 12 months when stored below 25°C under shade in a dry environment, protect against sunlight. If package has been opened apply the material within 2 months.

HEALTH & SAFETY

Product safety information required for safe use is not included. Before handling, read product and safety data sheets and container labels for safe use, physical and health hazard information. The safety data sheet is available from your local **a.b.e.® Construction Chemicals** sales representative.

IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.® Construction Chemicals** endeavours 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** and practical experience built up over 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.



Typical expansion joint detail for dura.®joint flexband & PVC centrebult waterstop

