# UNISTICK EA 1015

TWO COMPONENT EPOXY ADHESIVE




## Product Features

**UNISTICK EA 1015** is a two-component, epoxy resin-based adhesive system designed for application on **dry and damp substrates**. It is ideal for **jointing precast components**, particularly in segmental bridge construction, steel plate bonding, and other uses requiring high-performance adhesion. The material adheres effectively to concrete, steel, glass, wood, and rubber. Once fully cured, it resists various chemicals and solvents. It processes easily under standard ambient temperature and atmospheric pressure conditions.

**UNISTICK EA 1015** consists of two components (resin & hardener):

**UNISTICK EA 1015-A** - Formulated epoxy resin
**UNISTICK EA 1015-B** - Formulated hardener

## Advantages

- Suitable For Dry And Damp Surfaces
- Bond To Concrete Stronger Than The Concrete (Concrete Failure)
- Low Water Absorption, Resists Chemicals And Solvents When Cured
- Tested For Segmental Bridge Joints (FIP)

## Fields of Application

- Jointing of precast elements, including segmental bridge construction
- Applications requiring high-strength adhesion across concrete, steel, glass, wood, and rubber substrates
- Steel plate bonding

## Physical Properties

| Component | Colour | Viscosity (25°C) | Density |
|---|---|---|---|
| EA 1015-A (resin) | Sandy beige | 60,000 - 120,000 mPa·s | 1.70 - 1.80 g/cm³ |
| EA 1015-B (hardener) | Black | 50,000 - 100,000 mPa·s | 1.65 - 1.75 g/cm³ |
| EA 1015-A/B (mixed) | Grey | Paste | Approx. 1.70 g/cm³ |



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# UNISTICK EA 1015

## Technical Properties

| Property | Test Method | Unit | Result |
|---|---|---|---|
| Hardness | ASTM D2240 | Shore D | Approx. 90 |
| Sag Flow | ASTM D4400 | mm | Does not flow |
| Tensile Shear Strength | ASTM D1002 | N/mm² | Approx. 18 |
| Tensile Strength | ASTM D638 | N/mm² | > 30 |
| Compressive Strength (7 days) | ASTM C579 | N/mm² | > 85 |
| Flexural Strength | FIP | N/mm² | > 40 |
| Slant Shear Bond to Concrete | FIP | - | Concrete failure |
| Glass Transition Temp. (Tg) | ISO 11357-2 | °C | Approx. 40 |
| Heat Deflection Temperature | FIP | °C | > 50 |
| Shrinkage | FIP | % | < 0.05 |
| Water Absorption (14 d, 60°C) | FIP 9/2 | % | ≤ 0.5 |
| Open Time | FIP | minutes | > 75 |

Tested for segmental bridge construction (FIP). All values are subject to 5-10% tolerance.

## Health & Safety

This product contains epoxy resin, which can cause skin irritation. Wear disposable gloves during handling. In case of eye contact, rinse immediately with running water and seek medical assistance. Refer to the Safety Data Sheet (SDS).

## Shelf Life & Storage

Store the resin and hardener in their original sealed containers at **18°C to 25°C**. Stir the resin before use and keep the hardener tightly sealed against humidity. Usable for up to **12 months** under these conditions.

## Site Photos





This technical data sheet is given in good faith and does not guarantee the application work.
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# Installation Procedures

1 Surface Preparation | 2 Mixing | 3 Application

## Step 1
SURFACE PREPARATION

Proper surface preparation is required to ensure full bonding strength across all substrates.

**Concrete Substrates:** Prepare surfaces using mechanical techniques like grit blasting, scarifying, bush hammering, or wire brushing to eliminate laitance and loose particles. Conduct pull-off tests if surface strength is uncertain to verify structural integrity prior to application. Ensure new concrete is cured for a minimum of 14 days. For old concrete contaminated with grease or oil, steam clean thoroughly using an appropriate detergent to remove all residues.

**Steel Substrates:** Thoroughly grit-blast or abrade steel surfaces using a power brush, then degrease using a suitable solvent.

## Step 2
MIXING

Stir the resin and the hardener thoroughly before use. Combine one container of **UNISTICK EA 1015-A** with one container of **UNISTICK EA 1015-B** (**100 : 50** by weight) and mix completely until a uniform grey colour is obtained. Use mechanical stirring, ideally with a low-speed electric drill; mix by hand only for small quantities.

## Step 3
APPLICATION

Apply the mixed adhesive by buttering both surfaces whenever feasible, press the substrates firmly together, and clean off any excess material.

When bonding a steel plate to the soffit of a structure, apply an adequate thickness of mixed adhesive directly onto the steel plate to prevent void formation as it is raised into position and surplus adhesive squeezes out.

# Important Notes

- Mixing ratio for **UNISTICK EA 1015-A/B** should be 100 : 50
- **UNISTICK EA 1015-A/B** can maintain a pot life of 140-180 minutes in 25°C
- The data given are valid for standard test specimen only. Hardening conditions: 4 hours/80°C.


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