

# BELLINZONI®

## Technical Bulletin

### “STONEPOXY” epoxy setting compound for natural stones, marble, granite and quartz surfaces

Revised 01-2006 RV/ARB

#### Description:

STONEPOXY is a two-component product based on epoxy resins, selected fine-grain aggregates and special additives according to a formula developed in the BELLINZONI research laboratories. The two components are mixed to obtain a smooth paste that is easy to apply even on vertical structures in thickness up to 1 cm in a single layer. In just a few hours, STONEPOXY hardens by virtue of its chemical reaction. It does not shrink but becomes a compound with excellent adhesion and mechanical strength.

#### Technical Characteristics:

Appearance	Tixotropic paste (knifegrade)
Colour	Grey
Odor	characteristic
Specific gravity at 20°C (68° F)	Part “A” 1,6 ± 0,02 – Part “B” 1,5 ± 0,02
Hydro-solubility	insoluble
pH	n.a.
Catalysis ratio:	3 parts by weight of Part A; 1 part by weight of Part B.
Application temperature range	From +5° C (41°F) to + 30°C (86°F)
Final hardening	7 days
<b>Workability</b>	
At +10°C (50°F)	60 minutes
At +20°C (68°F)	40 minutes
At +30°C (86°F)	25 minutes
<b>Setting time</b>	
At +10°C (50°F)	7-8 hours
At +20°C (68°F)	3h 30 min
At +30°C (86°F)	1h 30 min
Bonding strength concrete-steel	> 3N/mm <sup>2</sup> (breaking of concrete)
Bonding strength steel-steel	> 19N/mm <sup>2</sup>
Bonding strength concrete-natural stone	> 3N/mm <sup>2</sup> (breaking of concrete)
Tensile strength (ASTM D638)	30 N/mm <sup>2</sup>
Elongation due to pulling stress (ASTM D638)	1%
Flexural strength (ISO 178)	40 N/mm <sup>2</sup>
Modulus of elasticity under compression (ASTM C579)	8000 N/mm <sup>2</sup>
Modulus of elasticity in flexion (ISO 178)	4000 N/mm <sup>2</sup>

#### Instruction for Use:

Preparing the substrate to ensure good adhesion of STONEPOXY and special care must be taken for the preparation of surfaces to be bonded. The concrete, natural stone or brick substrate must be clean, solid and dry. Sand-blasting is ideal to remove all loose and crumbling parts, efflorescence, cement laitance and traces of form-release oils. Then remove all dust with compressed air. STONEPOXY can be applied on concrete stone, brick or metal with a flat trowel or float. To obtain good bonding, it is recommended to spread the adhesive on both surfaces that need bonding and let the product penetrate well, especially on irregular surfaces. After applying the adhesive, unite the two pieces that need bonding and keep firm until the adhesive has completely hardened. The sufficient thickness to obtain an excellent bonding strength is approximately 1-2 mm. The two parts of STONEPOXY must be mixed together. Pour part B (white) into Part A (grey) and mix at a low speed with a drill fixed with an agitator until a uniform paste is obtained (a uniform grey). The product is already pre-dosed. To avoid incomplete hardening of STONEPOXY do not use partial

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quantities. When partial quantities are necessary, use a precision electronic scale. The mixing ratio is: – 3 parts by weight of Part A; - 1 part by weight of Part B. To obtain good bonding, it is recommended to spread the adhesive on both surfaces that need bonding and let the product penetrate well, especially on irregular surfaces. After applying the adhesive, unite the two pieces that need bonding and keep firm until the adhesive has completely hardened. The sufficient thickness to obtain an excellent bonding strength is approximately 1-2 mm. Because of the excellent thixotropic property, STONEPOXY can be also applied vertically or on ceilings without slipping. The environmental temperature has an effect on the hardening time of the two products. At +23°C (73°F) STONEPOXY remains workable for approximately 40 minutes. After this time, the products begin the hardening process. STONEPOXY must be applied within the useful pot life time. It is therefore useful to plan the work within the time limit mentioned above. Precautions to be taken before application No particular precautions need to be taken with temperatures between +10°C (50°F) and +30°C (86°F). During summer it is preferable to not expose the product to sun light and carry out bonding during the cooler hours of the day in order to prevent the rapid hardening of the product which would make application difficult. During winter, if outdoor bonding has to be done in temperatures lower than +5°C (41°F), it is recommended to heat the substrate at least 24 hours before bonding and use an appropriate insulating system to avoid freezing. Thermal insulation must be maintained for at least the next 24 hours. Store the product in a heated environment before use.

#### Suggestion for Use:

- Do not use STONEPOXY for sealing flexible or joints subject to movement
- Do not use STONEPOXY for shrinkage joints between fresh and old concrete.
- Do not use STONEPOXY on wet surfaces.
- Do not use STONEPOXY on dirty or crumbling surfaces.
- Do not use STONEPOXY for bonding and grouting anti-acid ceramic tiles.
- Read carefully recommendations printed on the tin before use.

#### Application on surfaces:

Marble, granite, terrazzo, agglomerated and engineered stones, sandstone, limestone, resin marble, concrete.

#### Safety procedures:

As far as the proper working procedures is concerned, we recommend to consult [Material Safety Data Sheets](#) issued according to E.U. rules and to follow your national laws concerning safety in the working place.

#### Packing:

2 kg units (Part A = 1.5 kg Part B = 0.5 kg). 6 kg units (Part A = 4.5 kg Part B = 1.5 kg).

The composition of the tins is Polyethylene High Density (HDPE). After use, comply with the local and national regulations currently in force regarding recycling.

Our packing is conformed as per U.N. rules for inland transport (A.D.R.) and by sea (I.M.O.) for transportation via air refer to updated rules (I.A.T.A.). For further information regarding transport please check MSDS.

#### Custom Tariff:

3214.10.10

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