

2 Component Epoxy Resin Bonding Agent – Wet Concrete to Existing Concrete

Guardian WEAP is a two component solvent free epoxy bonding agent. The base component is white and the hardener component is black providing visual evidence of adequate mixing. Conforms to ASTM C881-78 Type II Grade 2 Class B & C.

Complies to EN1504 Part 9 and EN1504 Part 3 and Part 4

Principle 3 : Concrete Restoration (CR).

Method 3.4 – Replacing Elements.

Principle 4 : Structural Strengthening. (SS)

Method 4.4 – Adding Mortar or Concrete.

Principle 5 : Increase in Physical Resistance (PR).

Method 5.3 – Adding Mortar or Concrete.

USES & ADVANTAGES

Guardian WEAP is used for bonding fresh wet cementitious materials to existing cementitious surfaces. Typical uses include structural bonding of new to existing concrete and as a bonding agent on concrete, mortar, steel and iron etc. It is ideally suited for roads, bridges, pavements, loading bays and factories. Guardian WEAP may also be used as part of a repair system or a repair barrier in permanently wet or damp areas.

Advantages include:-

- Can be applied on to dry or damp substrates.
- Solvent free.
- Long pot life therefore suitable where formwork or additional reinforcement has to be installed.
- Unaffected by moisture.
- Exhibits high mechanical strength.
- Easy to apply.
- Exceeds the tensile strength of the host concrete.

PROPERTIES

Appearance :	Base : White Hardener : Black
Pot life :	60-90 mins.
Specific gravity (mixed) :	1.45 - 1.47
Initial hardness :	2 - 4 hours
Full cure :	7 days
Max.overlay time :	4 - 5 hours.
Compressive strength :	≥ 60 N/mm ² at 7 days
Flexural strength :	35-45 N/mm ²
Shear strength :	≥ 20 N/mm ²
Bond strength to concrete :	≥ 2 N/mm ² (concrete failure)
Bond strength to steel :	15 - 20 N/mm ²

Note: Properties measured at 25°C. Data quoted typical for this product does not constitute a specification. To obtain performance characteristics stated in this data sheet, the mixing ratio must be maintained.

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SUBSTRATE PREPARATION

Clean the surface and remove any dust, unsound material, plaster, oil, paint, grease, corrosion deposits or algae. Roughen the surface and remove any laitance and expose aggregate by light scabbling or grit-blasting. Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or a proprietary degreaser. The effectiveness of decontamination and soundness of the substrate should then be assessed by a pull-off test.

MIXING

Any steel reinforcement and formwork should be prepared, cut to size and shape, and made ready for assembly before mixing commences.

Care should be taken to ensure that **Guardian WEAP** is thoroughly mixed. The “hardener” and “base” components should be stirred separately before mixing to disperse any settlement. The entire contents of the “hardener” tin should then be poured into the “base” tin and the two materials thoroughly mixed using a suitable slow speed drill and mixing paddle for about 2 minutes until a fully uniform colour is obtained. The sides of the tin should then be scraped and mixing should continue for a further 2 minutes.

APPLICATION

Guardian WEAP should be applied as soon as the mixing process has been completed. It should be brush or spray-applied to the prepared surfaces. On damp surfaces ensure that it is well brushed in.

The new concrete or screed should be applied to the coated substrate within 4-5 hrs. at 30°C.

At ambient temperatures above 30°C, the material should be stored in the shade or in an air-conditioned environment for 12 hours before use.

ESTIMATING

Guardian WEAP covers 4-5 m² per 1.46 kg depending on the porosity and surface of substrate.

PACKAGING

1.5 and 6.0 kg. two component packs.

TECHNICAL SERVICE

Guardian Coating Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

HEALTH & SAFETY

Ensure adequate ventilation and avoid inhalation of vapours. Wear suitable protective clothing, gloves and eye protection. Remove from skin immediately with resin removing cream and wash with soap and water. Do not use solvent.

If poisoning occurs, contact a Doctor or Poisons Information Centre.

If swallowed, do NOT induce vomiting give a glass of water. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor. If skin contact occurs, remove contaminated clothing and wash skin thoroughly.

CLEANING

Clean all tools immediately after use with Guardian Cleaner. Hardened material can only be removed mechanically.

QUALITY ASSURANCE

ISO 9001 : 2015 verified by TUV Nord.

STORAGE & SHELF LIFE

Guardian WEAP has a shelf life of 12 months if kept in a dry store in the original unopened packs.

If stored at high temperatures, the shelf life may be reduced.