

Preparation Date 30.05.2014
Revision Date 02.11.2018
Revision No 2
Page No 1 / 4

Tardigrade ECWB 280

Two Component, Water Based Epoxy Resin Coating

Description of Product

Tardigrade ECWB 280, is a water based, two component, epoxy paint and coating, which can be applied to floors and the walls.

Fields of Application

- On concrete and cement based mineral surfaces
- In hygienic areas such as hospitals, laboratories, industrial kitchens, food industry facilities
- Industrial areas exposed to normal and medium heavy load e.g. storage and assembly halls, maintenance workshops garages, loading ramps
- Pedestrian walkways, parking lots, hotels, and power plants

Advantages

- It has vapor permeability and breathing ability
- Ultrahigh bond strength
- Solvent-free and odorless
- Hygienic, easy to clean and maintain
- Moisture tolerant
- Easy application
- Resistant to mechanical loads, abrasion and chemicals

Appearance

Mix (Part A +Part B): Ral Colors

*Differences in color may occur under the influence of direct sunlight. This does not affect the physical and chemical resistance of the coatings.

Packaging

Part A	: 15 kg. net	- Part B	: 10 kg. net
Total Set	: 25 kg. net	- Total Set	: 27,55 kg. gross
Part A	: 2,40 kg. net	- Part B	: 1,60 kg. net
Total Set	: 4 kg. net	- Total Set	: 4,90 kg. gross

Storage

Store in original sealed containers in dry environment at temperatures between +10°C and +30°C. Do not put excessive

Preparation Date 30.05.2014
Revision Date 02.11.2018
Revision No 2
Page No 2 / 4

loads on top of the products, which would damage the packaging.

Shelf Life

Minimum 12 months from date of production if stored in original unopened containers. Once opened, product should be consumed within one week as it is stored under appropriate storage conditions.

Chemical Structure

Part A: Epoxy Resin

Part B: Epoxy Hardener

Technical Specifications

All technical values were calculated based on +23°C and 50% relative humidity. Temperature and humidity changes would change technical values.

Tardigrade ECWB 280 Technical Data

Density	Mixed Resin: 1,30 kg/liter (\pm %3)
Viscosity	Mixed Resin: 3.000 – 5.000 mPa.s
Shore D Hardness	7 days: 75 - 85 (ASTM D2240-05)
Bond Strength	7 days : > 3 N/mm ² (Concrete) (ASTM D7234)
Abrasion Strength	7 days: < 30 mg (CS 10/1000/1000) (ASTM D4060-14)
Duration of Use After Mixing	60 - 90 minutes
Total Curing time	7 days

Preparation of Substrate

Concrete substrates must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 2,0 N/mm². The residual moisture content of the substrate must not exceed 6%, the substrate temperature should remain a minimum of +8°C and the temperature of the substrate must be at least +3°C above the current dew point temperature.

The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. Capillary pores where in the concrete surface should be filled. Oil-contaminated substrates must be pre-cleaned with an emulsifying cleaning detergent in accordance with the supplier's instructions. Then the surface is cleaned using high-pressure water jetting. Excess water is removed from the surface by wet and dry vacuum cleaner.

Cleaned surface must be scraped with a suitable method either grinding, shot blasting or sanding and the surface must be roughed. After the mechanical cleaning, the dust layer should be swept with the help of industrial vacuum cleaners. If in doubt of the surface, apply a test area first. Do not apply on wet or frozen surfaces and surfaces with high humidity.

Application Conditions

Preparation Date 30.05.2014
Revision Date 02.11.2018
Revision No 2
Page No 3 / 4

During the application, ambient temperature should be between +8°C and +30°C. Relative Air Humidity should not exceed 80% and the substrate temperature should be between +10°C and +30°C. Substrate humidity should be maximum 6%. Substrate temperature must be at least +3°C above the current dew point temperature. The concrete floor should be primed using the appropriate Tardigrade primer material and ready for top coat application.

Mixing

Make sure that the product temperatures are between +10°C and +30°C before starting the mixing procedure. Prior to mixing, stir part A with a mechanical drill and paddle at a very low speed. Add component B gradually into component A and mix till you reach a homogeneous consistency (Approximately 3 minutes). Pour the contents into a clean container and mix for another couple minutes. Please avoid mixing on high speed and do not add any solvent, etc. into the mixture during the application procedure.

Application Procedure

With the above mentioned ideal surface and weather conditions;

Avoid application under excessive heat or wind, rain and/or when the ambient and/or substrate temperature is below +10°C or above +30°C. Heaters and dryers should be used to measure the ambient humidity and substrate temperature when necessary. It should not be applied on insufficient waterproof surfaces.

After the mixing procedure, Tardigrade ECWB 280 can be applied to a surface, which is already primed with appropriated Tardigrade primer, with short pile roller or airless spray equipment. If spray equipment used, use of preventive health and safety equipment is required.

Make sure that a continuous, pore free coat covers the substrate. Two coats of application should be done and waiting time between coats should not be more than 24 hours. If this time is exceeded, the surface must be roughened again before the second coat.

The surface brightness may vary with temperature and absorbency of the substrate. If done in enclosed areas, ensure that there is sufficient fresh air circulation to prevent curing problems. For exact color matching, ensure the Tardigrade ECWB 280 in each area is applied from the same control batch numbers.

Mixed product should be applied in max. 30 minutes in about +23°C. Waiting time between coats should be minimum 10 hours in +23°C and maximum 48 hours. If waited more than 48 hours, the surface should be grinded. The product would be completely cured in a minimum of 7 days to reach its maximum mechanical and chemical resistance. In case heating is needed, do not use gas, oil, paraffin or other fossil fuel heaters. Use only electric powered warm air blower system. Reaction times of resin based systems change depend on ambient conditions. The duration of the chemical reaction and the duration of the work also change accordingly. Therefore, this detail should be considered properly during application. Under lower temperatures reaction times are longer which increases pot life, coating interval and working time. After application, the material should be protected from direct contact with water for a minimum of 48 hours.

Within this period, contact with water can cause a surface carbonation and/or surface tackiness, both of which must be removed. In such cases, overall coating should be removed from the floor and renewed.

To maintain the appearance of the floor after application, ECWB 280 must have all spillages removed immediately and

Preparation Date 30.05.2014
Revision Date 02.11.2018
Revision No 2
Page No 4 / 4

must be regularly cleaned using rotary brush, mechanical scrubbers, scrubber dryer, high pressure washer, wash and vacuum techniques etc. using suitable detergents and waxes.

Epoxy and polyurethane flooring systems, should be performed by expert contractors and applicators.

Cleaning of Tools

Clean all tools and application equipment with water or appropriate immediately after use. Hardened/cured material can only be mechanically removed.

Coverage

Tardigrade ECWB 280 A + B mixture is used as the main coating material in coating systems and its consumption varies according to usage of it in the system. Please refer to the system recommendations for proper consumption quantities.

** Coverage increases as the viscosity gets higher at lower temperature.*

Health and Safety Information

The following protective measures should be taken as per Occupational Health and Safety (OHS) regulations when working with the material. Safety gloves, goggles and protective clothing should be worn. Due to irritation effects of the uncured material, components should not come in contact with the skin, mouth or eyes.

In cases of contact the affected area should be washed with plenty of water and soap. If swallowed, seek medical attention immediately. Do not drink or eat at the application site. Keep out of reach of children. For detailed information please refer to the safety information form (safety data sheet).

Product Liability

Tardigrade Construction Chemicals Inc. is just responsible for the quality of the Tardigrade labelled products. All the data referred herein are gathered as a result of practical and scientific studies. Tardigrade cannot be legally obligated or responsible for any damage unless correct product is used accurately in suitable areas and under right conditions.

Legal Notes

All the information and references herein regarding Tardigrade labelled products are provided in good faith, if kept and interfered in accordance with normal conditions, recommendations, and with knowledge and experience. Along with products, areas of use and surfaces can cause many differences. It is necessary to make sure that the right products with Tardigrade trademark are applied on suitable surfaces under normal conditions. Moreover, all the above given information and instructions regarding technical compatibility with commercial factors must be strictly followed. The manufacturer cannot be held responsible for any damage or problems that may arise if not followed. The applicator / user is obliged to carry out the relevant checks to ensure about these details. The specifications of the Tardigrade branded products may be changed if necessary. The property rights of third parties must be observed. All the technical requirements for sale and shipping are valid when the order is approved.