

UNI-GUARD EPO 20

DESCRIPTION / USE:

For Professional Use Only.

EPO 20 is very low odour, non-flammable and may be used for most industrial and commercial flooring applications including those in food processing plants.

EPO 20 is considered to be a very high performance 100% solids slightly clear epoxy resin.

As a multi system binder, EPO 20 can be used for most seamless epoxy flooring applications including trowel applied systems, self-levelling systems, slurry broadcast, roller / squeegee applications, flake flooring and as a general purpose primer and binder.

EPO 20 utilises state of the art thixotropic polymers that do not impact on the resin flowability and finish. These thixotropies allow for a self-smoothing application, easier mixing and reliability in relation to colour and gloss level consistency. Cure profile can be adjusted to suit specific requirements, however, in its standard form when tested at 20 degrees Celsius, EPO 20 has 30 minutes of workable pot life with a redcoat / handle time of 8 hours. No mechanical preparation is required for subsequent coating if recoated within 8-24 hours. EPO 20 is an industrial grade resin system intended for use by trained applicators only. Specific management of brushes and rollers is required when multiple mixes are being performed. Resin will not easily mix back into itself once gel cycle has begun.

Prior to commencing installation, attentively study all product and system information and carefully read and comprehend all applicable Material Safety Data Sheets (MSDS). Do not commence installation until a thorough understanding of the product and system has been reached. Work site safety is the top priority and Personal Protective Equipment (PPE) as outlined in the Material SDS must be worn and used at all times.

APPLICATIONS:

- Industrial, Commercial and Residential flooring Interior/Exterior.
- Areas subject to impact, abrasion, thermal shock and chemicals.
- Food and chemical production areas, where appearance, durability and low maintenance are important.
- Concrete repair.
- Approved for use in food manufacturing plants by regulatory authorities.
- Food, Brewing, Canning and general manufacturing areas.
- Dairy Industry – Manufacturing, packing areas.
- Meat Industry – Freezers, chillers and processing areas.
- Pharmaceutical manufacturing.
- Confectionery and chocolate manufacturing.
- Restaurant/hotel kitchens
- Supermarkets - Meat preparation deli areas
- Prisons – Kitchens and ablutions
- Hospitals, Ablution facilities in schools, shower bases for the disabled.
- Kitchens: commercial
- Freezers & Chillers

SPECIAL FEATURES:

- Clear decorative finish
- Single product can be used as primer, base coat and topcoat
- High film build
- Can be tinted on site with suitable epoxy paste / tints

LIMITATIONS:

- Moderate pot life and application time is not suitable for inexperienced applicators
- Poorly prepared substrates will be suspect to coating failure
- Not suitable for use in exterior applications

MIXING & THINNING:

Mix 2 Part A to 1 Part B by volume (2:1 v/v) with a slow speed drill for 2 minutes at no more than 300 RPM creating a homogenous mixture while being careful not to induce air into the product.

Pigment / tinter is added to Part A and mixed well, Part B is then added. Suitable pigment is added at rate of approximately 1kg pigment to 15 litres of resin including Part B. Various colours and brands will offer different colour opacity.

DO NOT exceed tint amount.

After mixing, immediately without delay, pour the mixed material in a long ribbon onto the surface to be coated. Avoid keeping mixed material in buckets as the product will **skin-off** as it enters its gel period and may contaminate future mixes.

METHOD OF APPLICATION:

Uni-Guard EPO 20 can be applied with a t-bar applicator, magic trowel or suitable non linting roller cover.

It is highly recommended to apply with a magic trowel or t-bar applicator followed by back roll with a non linting roller cover.

AVAILABLE COLOURS:

For colours refer to Uni-Guard Standard Colour Card.

AS2700 colours - MTO

(made to order, metallic or matt finish - minimum order quantity may apply for colours not included in colour card.

RE-COAT TIME:

Recoating Uni-Guard EPO 20 can be carried out without abrading and sanding subsequent coatings if reapplied within 24 hours. If recoating Uni-Guard EPO 20 any longer than the 24 hour recoat window, the previous coat of Uni-Guard EPO 20 will need to be sanded to a minimum profile of (60-80# mesh sanding screen).

COVERAGE:

Uni-Guard EPO 20 can be applied from (200µ to 2000µ mil WFT) on smooth non-permeable surfaces.

Consumption will vary dependent on surface profile and porosity.

Primer @ 5m² per litre – 5% reducer

Base Coat @ 5-7m² per litre

Topcoat @ 7-9m² per litre

**The above rates should be used as a general indicator only.*

CLEAN / WASH UP:

Clean all tools and materials with solutions or solvents suitable for epoxy coatings (xylene, MEK, epoxy thinner, etc.). Wash hands and skin tenaciously with warm soap and water. Remove all soiled clothing. Once product has cured, it can only be removed through mechanical means. Roller covers cannot be reused and are to be disposed of after materials have hardened.

SURFACE PREPARATION:

All new concrete must be allowed to cure for a minimum of 28 days. Remove any oil or grease with a surface degreaser. Remove all curing compounds, bond breakers and foreign contaminants. Mechanically remove any laitance, loose or friable surfaces followed by preparing the substrate by diamond grinding or shot blasting the surface to a CSP (Concrete Surface Profile) of 2+. Remove all dust prior to material application.

Consideration of environmental conditions at time of application should be made. Do not apply Uni-Guard EPO 20 when humidity is in excess of 80%. Uni-Guard EPO 20 can be applied from 12°C up to 40°C.

HEALTH & SAFETY:

- Refer to MSDS prior to use
- Wear protective clothing
- Ensure good ventilation if using indoors
- Wear eye protection
- When spraying, wear suitable vapour cartridge respirator
- Store in a cool place

FIRST AID:

- Both Uni-Guard EPO 20 Part A and Part B are Hazardous Chemicals
- Wear chemical resistant gloves, eye protection, approved breathing apparatus and overalls during mixing and application as outlined in the latest revision of the MSDS
- Ensure there is adequate ventilation and avoid breathing any vapour
- Uni-Guard EPO 20 is a skin sensitizer. If materials are exposed to skin, wash immediately with warm soapy water and remove soiled clothing. See a doctor at first sign of dermatitis
- If materials are swallowed, call Poisons Information Centre on 13 11 26 (within Australia) without delay
- If in eyes, hold eyes open and flood with fresh water for at least 15 minutes followed by visiting a doctor

RESTRICTIONS:

- Concrete substrates must be sound and have a minimum compressive strength of 21 MPa, with a minimum surface pull of strength of 1.5 MPa.
- The substrate must be clean, removed of any standing water and free of all contaminants, e.g. dirt, oil, grease, coatings and surface treatments.
- Humidity should be less than 80% at time of application.
- Substrates with moisture content equal to or greater than 4% with not be over coated without first contacting the manufacturer in writing for further instructions.

STORAGE & PACKAGING:

Material is to be stored from 5°C to 35°C and away from direct sunlight. Materials are best used within 36 months of the date of manufacturing if kept in original sealed containers. Do not store containers directly on cold and damp surfaces.

Uni-Guard EPO 20 is available in 15 litre, 60 litre, 600 litre and 3,000 litre kits or custom packaged upon request if purchased in volume.

ENVIRONMENT:

Do not tip unused paint or waste materials down drains.

Dispose of waste using authorised collection procedures.

DISPOSAL:

During clean up after use, ensure that any chemicals do not flow to gutters or drains as it may contaminate waterways. Do not reuse empty can. Container can be recycled. Check with your local authorities or waste management office for more information related to the disposal of this container.

PHYSICAL TEST PROPERTIES:

PROPERTIES	Uni-Guard EPO 20
Solids by Volume	100% (+/- 1%)
Solids by Weight	100% (+/- 1%)
Part A Density	1.05 – 1.15 g/cm ³
Part B Density	0.95 – 1.15 g/cm ³
Mix Ratio by Volume	2 Part A to 1 Part B (2:1 v/v)
Mix Ratio by Weight	2 Part A to 1.1 Part B (2.2:1 w/w)
Volatile Organic Compounds (VOC) ASTM D-2369	0 grams per litre
Pot Life (Ca. @ 25°C)	35 minutes (100 gram mass)
Gelation Time (Ca. @ 25°C)	50 minutes
Dry to Touch Time (Ca. @ 25°C)	8 hours
Recoating Time (Ca. @ 25°C)	11 hours to 24 hours
Open to Light Foot Traffic (Ca. @ 25°C)	18 hours
Open to Heavy Traffic (Ca. @ 25°C)	48 hours
Full Cure (Ca. @ 25°C)	7 days
Combined mix viscosity (Ca. @ 25°C)	500 – 800 CPS (at time of mixing)
Adhesion to Dry Concrete	Concrete Failure (1.5 MPa)
Adhesion to Damp Concrete	Concrete Failure (1.5 MPa)
Elongation At Break ASTM D-638	7%
Tensile Strength ASTM D-638	50 MPA
Compressive Strength ASTM D-695	95 MPA
Shore D Hardness ASTM D-2240	78-82
Abrasion Resistance CS 17 Wheel, 1000 Gram, 1000 Cycles ASTM D-4060	29 gram loss
Water Absorption	None

Disclaimer: Due to no direct control over application of its products, Boja Specialised Coatings advise any recommendation or information is provided based on technical information outlined during specification period. Boja Specialised Coatings does not accept responsibility or liability arising from the use of its products whether or not in accordance with any advice, information, recommendation, specification or service.