EPOXY RESIN ACCELERATOR ES80™

Date of Issue – June 2020
This TDS replaces all previous versions.

TECHNICAL DATA SHEET

DESCRIPTION

Epoxy Resin Accelerator ES80™ is a superior curing catalyst designed for use with amine hardeners. The product was specifically developed for use with DCC 100% solids epoxy resins to accelerate curing time, but it is also compatible with most amines and may be used in most amine cured epoxy systems. Epoxy Resin Accelerator ES80™ is designed to reduce cure times at low temperatures and provides improved surface quality of the systems for tack free surfaces through faster curing times, making the coating less vulnerable to dust and bugs.

FEATURES & ADVANTAGES

- Accelerates cure rate
- Low rate of addition
- Very effective
- Shorter tack free time through faster curing
- Faster re-coat window
- High reactivity
- Fast cure at ambient & low temperatures
- Colour retention
- Does not modify the glass transition temperature
- Unchanged mechanical performance

RECOMMENDED USE

- Decorative Epoxy Finishes
- Bars, Pubs & Taverns
- Butcher Shops and Commercial Kitchens
- Food Processing Plants & Grocery Stores
- Schools, Stadiums & Hallways
- Showrooms, Garages and Workshops
- Lobbies, Lounges, Nightclubs & Foyers
- Salons, Retail Stores and Wineries
- Shopping Centres and Retail Flooring
- Museums, Office Buildings & Galleries
- Restaurants & Lunch Rooms
- Veterinary Clinics, Zoos & more…

TECHNICAL DATA & CHARACTERISTICS

APPEARANCE	Liquid
COLOUR	Clear slight straw
VOLUME SOLIDS	N/A
FINISH	N/A
COVERAGE	N/A
MIX RATIO	1 – 5% by volume per 1L per mixed epoxy
PACK SIZES	5L
SPECIFIC GRAVITY	1.07 kg/L
POT LIFE	N/A
DRYING TIME	N/A
RECOAT TIME	N/A
FULL CURE	N/A
SHELF LIFE	12 months, if properly stored in original unopened containers at temperatures between 10° C and 30°C, away from sunlight.

* The pot life time depends on climatic conditions and temperatures.

** Drying times generally depend on air circulation, temperature, film thickness, and application methods. The figures given above are typical with good ventilation, typical film thickness and single coat application.

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SURFACE PREPARATION

All surface preparations have to be carried out to Australian Standard or International Standard. New concrete must be cured for a minimum of 28 days before a coating.
Concrete moisture test should be carried out prior to coating application as per Standard ASTM4263 and/ or International Standard. The moisture content should be less than 4%.
Surface to be treated must be structurally sound and the substrate compressive strength should be at least 25MPa. The substrate tensile strength should be at least 1.5N/mm^2. All non-structural cracks, holes and surface deformities should be repaired.
In general, the surface to be treated MUST be clean and free of all traces of loose material, dirt, debris, mildew, oil, grease, old coatings, curing compounds, release agents, laitance, dust and other contaminants.
All new or old concrete surfaces should be prepared by mechanical grinding, abrasive blasting, blast-tracking, or any other suitable preparation/cleaning methods. Surface profile should exceed CSP 3 after preparation. Check if all traces of oil and other contaminations has been completely removed prior coating application.

For more detailed information, see following standard codes of practice, guides and techniques:
ASTM D4258 Standard practice for surface cleaning concrete for coating
ASTM D4259 Practice for abrading concrete
ASTM D4260 Practice for liquid and gelled acid etching of concrete
ASTM D4262 Test method for pH of chemically cleaned or etched concrete surfaces
ASTM D4263 Test method indicating moisture in concrete by the plastic sheet method
ASTM D4285 Test method for indicating oil or water compresses air

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APPLICATION & GUIDELINES

Mixing

Shake well before use. First mix Epoxy Part A and Epoxy Part B only. Add Epoxy Resin Accelerator ES80™ into mixed product before adding any thinner. Add 1% - 5% of accelerator by volume per 1L MIXED epoxy product. Only use with compatible Durable Concrete Coatings epoxy resin. Use a mechanical mixer for all mixing processes and ensure thorough mixing. The addition rate depends on project specific conditions such as air temperatures, substrate temperatures, product temperatures as well as airflow and relative humidity. Do NOT exceed 5%.

Application

Pour the epoxy resin immediately on the floor after using accelerator and mixing. If epoxy batch is left in the drum/container/confined space the molecular chemical chain reaction will take place faster and your mix will set off rapidly within minutes. Do NOT leave mixed product in container!

Ensure each batch of epoxy is mixed in a new, clean bucket or container. Do NOT mix any batches in containers which have previously been contaminated by accelerator, as residue on the inside of the container will cause the new batch to cure more quickly, possibly causing inconsistencies between batches.

Curing Times

The approximate rule of thumb note is that the pot life will shorten by one third and your curing time will half. These are estimates only and can vary from system to system. Once temperatures go under 10°C the accelerator will have minimal effect. All drying times depend on climatic conditions, temperatures, substrate temperatures, product temperatures, film thickness, ventilation, humidity and application methods.

Limitations of Epoxy Resin Accelerator ES80™

Will reduce pot life and working time. Reduces product re-coat window. Overdosage will highly affect working time, levelling performance, pot life and adhesion properties. Coated surface and ambient temperature must NOT drop below 10°C during curing process. Falling below dewpoint and build-up of condensation will result in blushing of the uncured epoxy.

Cleaning

Clean all equipment immediately after use with Solvent SLP100™.

Coating Maintenance

In general dirt, dust, contaminants, and excessive wear and tear will shorten the life of coating. Keep these areas clean and free from such pollutants and avoid excessive wear and tear. Clean coating regular with warm mild detergent water up to 60°C and rinse with clean water. Do not use abrasive brushes, scouring pads or solvent to clean the coated surface. It is advisable if abnormal wear and tear will occur through moving furniture such as office chairs, keep these areas protected with a protective mat.

Compatibility & Suitability

Do NOT mix this product or use this product in combination with any other products or brands. Due to the differences in substrates, material and site conditions, and environmental surrounds, the applicator holds whole responsibility for checking the products suitability for its intended purpose prior application. Only products of the same brand/system should be used in combination as a system.

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PRECAUTIONS

Safety Data Sheet and Technical Data Sheet must be read before using and opening this product. Keep out of reach of children. Always wear personnel protective equipment (PPE) when handling this product. Keep away from heat and flame. No smoking. Provide adequate ventilation. For more details refer to safety data sheet (SDS).

Do not apply if the air or surface temperature is below 10°C, or if the temperatures are subject to drop below 10°C during applying, or after application within the curing time.

Do not apply if substrate is subject to hydrostatic pressure or rising dampness.

Do not apply if surface is subjected to unusual high temperatures above ambient temperature.

Do not apply if the surface temperature is over 30°C, or if the surface temperature is subject to raise above 30°C during applying, or after application within the curing time, or if relative humidity is suspected to become above 85%.

Do not apply if substrate is subject to rain or moisture, and protect surface at least 24 hours against any water impact, or moisture after application within the curing time. Do not use any product past its pot life. Store locked up, in a cool, dry, well ventilated place, away from sunlight, between 10°C and 30°C. Keep container tightly closed.

DISCLAIMER

Do not apply this product if there is uncertainty about application or surface preparation. This Technical Data Sheet is to be used as a guide only; it is NOT a specification. Durable Concrete Coatings Pty Ltd has no control over the use or storage of this product and therefore does not accept liability in this regard. Any verbal advice given should not be regarded as authoritative information. This information is subject to change without notice, therefore all applicators should ensure they have current information. This product is intended for the use only of skilled tradesman and where applicable, statutory licensed tradesmen experienced and trained in the use of this product. Due to differences in substrates, application methods and local conditions purchasers of these products must ensure that it is suitable for their specific application before using these products. While the information contained in the TDS and SDS is accurate to the best of our knowledge, Durable Concrete Coatings Pty Ltd cannot guarantee that the information contained is wholly comprehensive. Subject to the provisions of the Trade Practices Act, the Company's liability in relation to defective product shall be limited to replacement of the product, proving the product to be defective. Durable Concrete Coatings Pty Ltd all terms and conditions apply.

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