cemseal®

Technical Data Sheet

CEMSEAL E500AS

2-PART WATER-BASED EPOXY CONDUCTIVE PRIMER

DESCRIPTION

CEMSEAL E500AS is a high-performance, 2-part, water-based epoxy primer with high electrostatic conductivity. It is specifically designed to be used as a conductive primer layer applied directly below electrostatic conductive floor coatings.

FEATURES AND BENEFITS

- Meets stringent requirements for surface resistivity
- Exceptional substrate adhesion strength
- Versatile application methods including spray, roller, or brush
- Environmentally preferred, water-based epoxy technology

RECOMMENDED USES

- Functions as a highly effective conductive primer below electrostatic conductive floor coatings.
- Ideal for industrial and commercial environments requiring strict static control.
- This product may only be used by experienced professionals.

SYSTEM STRUCTURE

CEMSEAL E500AS is designed to be used as the high-performance conductive primer within specific electrostatic conductive flooring systems

Always refer to the appropriate System Data Sheet for comprehensive application instructions and system build-up details.

- CEMSEAL ESDFLOR WB-AS System Data Sheet

PRODUCT INFORMATION

Packaging	6kg set Part A : 5kg Part B : 1kg
Appearance	Part A : Black Liquid Part B : Transparent Liquid
Chemical Base	Waterborne Epoxy
Specific Gravity	~ 1.10 (mixed)

TECHNICAL PROPERTIES

Properties	**Test Method**	Typical Value
Surface Resistivity*	EN 61340-4-1	Rg ≤ 10^4 Ω
Adhesion Strength	ASTM D4541	> 1.5 N/mm^2

*Readings may vary, depending on ambient conditions (i.e. temperature, humidity) and measurement equipment.

SUBSTRATE REQUIREMENTS & PREPARATION

- The surface must be clean, sound, dry, and free from contaminants such as dirt, oil, grease, coatings, laitance, and loose friable material.
- The concrete substrate must possess sufficient compressive strength (min. 25 N/mm^2) and a minimum pull-off strength of 1.5 N/mm^2.
- Surfaces should be prepared mechanically using abrasive blast cleaning or diamond grinding to remove cement laitance and achieve an open-textured surface.
- All dust and loose material must be thoroughly removed via industrial vacuuming equipment before application.

APPLICATION INFORMATION

Ambient Temperature	+10°C min. / +35°C max.
Substrate Temperature	+10°C min. / +35°C max.
Relative Humidity	Maximum 80%
Dew Point	Substrate temperature must be at least +3°C above the dew point to reduce the risk of condensation.
Mixing Ratio	Part A : Part B = 5 : 1 (by weight)
Consumption	0.06 - 0.08 kg/m^2 per coat
Pot Life (+ 30°C)	~30 minutes
Waiting Time / Overcoating (+ 30°C)	Min: 12 hours Max: 48 hours

*Note: Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity. When the relative air humidity is ≥ 80 % the waiting time should be increased by 24 hours.

MIXING

1. Stir Part A (Resin) mechanically prior to mixing until the black pigment is dispersed and a uniform colour is achieved.
2. Add Part B (Hardener) to Part A. Do not mix excessively.
3. Continuously mix using a slow-speed electric mixer (300-400 rpm) for approximately 2 minutes until a uniformly coloured, smooth mix is achieved.
   During the final mixing stage, scrape down the sides
4. and bottom of the mixing container with a flat-edge trowel at least once to ensure complete mixing.

APPLICATION METHOD

1. Apply the product evenly using a "dip-and-roll" method with a short-piled roller, or apply via spray or brush.
2. Back-roll the surface in two directions at right angles to ensure a continuous, pore-free coat.
3. After the curing of the CEMSEAL E500AS conductive primer and before the application of subsequent wearing layers, conductivity testing is recommended to be carried out to ensure all readings fall within the required electrical resistance range.

CLEANING OF TOOLS

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

IMPORTANT NOTES

- Freshly applied CEMSEAL E500AS must be strictly protected from dampness, condensation, and direct water contact for at least 24 hours.
- Do not apply the product on substrates with rising moisture.
- Do not use self-adhesive copper tapes to form conductive grids across the floor, as it can negate protective effects. Only use the earthing points contained in the CEMSEAL EARTHING KIT SET. Earthing points must be marked and covered using a rubber mat with a resistance of > 1MΩ.
- Always ensure adequate fresh air ventilation when using the product in confined spaces to avoid curing issues.
- For temporary heating, use only electrically powered warm air blower systems, as fossil fuel heaters produce water vapour and carbon dioxide that may adversely affect the finish.

STORAGE AND SHELF LIFE

Storage: CEMSEAL E500AS should be stored in the original manufacturer's packaging in a shaded, cool, and dry place. Storage temperature should be between +5°C and +30°C. Keep at least 2 meters away from direct heat sources.
Shelf Life: Expected 12 months shelf life with the above-mentioned storage conditions.

HEALTH & SAFETY

The user must refer to the latest version of the Safety Data Sheet (SDS) for comprehensive information on the safe handling, storage, and disposal of this chemical product. The SDS contains essential physical, ecological, and toxicological data required for professional use.

BASIS OF TECHNICAL DATA

All technical data provided in this Technical Data Sheet are based on laboratory tests. Actual performance may vary due to factors beyond our control.

Disclaimer:
The information and any recommendations relating to the application and end-use of all CEMSEAL products are provided in good faith based on CEMSEAL's knowledge and experience of the products. In applications, the differences in materials, and variances of substrates and actual site conditions can vary such that no warranty in respect of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be taken as inferred either from this information, or from any written recommendations, or from any other advice offered by CEMSEAL. The proprietary rights of third parties must be observed. All orders are accepted subject to our sale terms and conditions. All users should always refer to the most recent and up to date issue of the Technical Data Sheet for the product concerned, which is available on request. It is recommended that products should always be properly stored, handled and applied under tested and recommended conditions.

For More Information:

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