RUST-OLEUM®

Concrete Protection Systems

4700 SYSTEM
ULTRAPLEX™ SD S
ESD CONTROL EPOXY FLOOR COATING – SMOOTH STATIC DISSIPATIVE

DESCRIPTION

UltraPlex™ SD S floor coating is a 100% solids epoxy designed to meet the electrostatic dissipative requirements of a wide variety of industrial flooring needs. As a total system, including Prime and Seal™ Primer and Primer ESD-WB, UltraPlex™ SD S provides 32 mils of protection.

It is designed for protection of concrete in light to medium service areas, typically for foot traffic and rubber covered wheel traffic. This product has a two month shelf life, but will not compromise electrical performance, although may effect aesthetic properties.

UltraPlex™ SD S floor coating is a two component formulation of epoxy resin and cycloaliphatic curative. The use of conductive particulate provides the required degree of static dissipation.

UltraPlex™ SD S floor coating is ideally suited for electronic assembly areas, paint plants, paint spray areas, areas for automatic guided vehicles, computer control rooms, clean rooms and pyrotechnic processing and storage areas among many others.

This CPS Type II product is typically installed by factory trained contractors. Be sure you are fully aware of all application procedures and have all the required application equipment available prior to beginning application of this product.

FEATURES AND BENEFITS

- Electrostatic dissipative: For areas where electrostatic charge build-up hinders productivity. (1.0×10^6 to 1.0×10^9 @ 100 V.)
- Chemical resistant: Offers splash and spill resistance to a variety of acids, alkalis, and solvents.
- Durability: UltraPlex™ SD S floor topping provides a long-wear surface for protection where conductive tile, conductive carpet or rubber mats just aren't enough.
- Maintenance: UltraPlex™ SD S is nonporous. It is easily mopped clean or hosed.
- Monolithic: Its monolithic construction provides a wall-to-wall or joint-to-joint seamless floor.
- Tough: Has exceptionally high resistance to impact. May be used in wet areas. Resists water erosion without moisture absorption.

PACKAGING AND COVERAGE

Kit Size	Coverage
1 gallon	100 sq. ft.

COLOR

Available in Navy Gray and Light Gray. Colors may vary slightly from colors shown on the standard color chart.

PRODUCT APPLICATION

CONCRETE PREPARATION

NEW CONCRETE: New Concrete Laitance must be removed by muriatic acid etching or shotblasting. On concrete that has been cured with curing compounds or has a burned in finish, shotblasting or sandblasting is required.

EXISTING CONCRETE: Existing Concrete Concrete must be sound and old coatings and toppings must be removed. Concrete must be free of previous coatings, oil, wax, paint and other contaminants. Water soluble contaminants can be hosed off with water. Water insoluble materials will require the use of a cleaner degreaser or some other method of removal. Concrete must be visibly dry at time of application of the Prime and Seal™ Primer which must precede Primer ESD-WB.

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PRODUCT APPLICATION (cont.)

APPLICATION OF PRIMERS

Prime and Seal™ Primer and Primer ESD-WB are required and spread over the prepared concrete surface with a rubber squeegee then rolled with a short nap roller. Refer to individual technical bulletins for Application and Mixing instructions. Rate of application will vary depending on the surface texture and porosity.

Expected coverage rates will be:

Prime and Seal™ Primer: 8 mils (wft) 200 sq. ft./gal.

Primer ESD-WB: 8 mils (wft) 200 sq. ft./gal.

MIXING

Mix UltraPlex SD S with a birdcage or Jiffler mixing attachment and electric drill. Add the complete container of part B to the short-filled gallon of part A. Mix for two minutes to ensure complete mixing.

APPLICATION

Application is accomplished using a rubber squeegee and a short nap roller, at a thickness of 16 mils (100 sq. ft./gal).

CLEAN UP

Xylene can be used to remove material from equipment if it is cleaned before the material has started to set up. Otherwise, stronger solvents such as methylene chloride will be necessary.

TESTING

After 24 hours, surface resistivity can be tested for confirmation with job specifications. Final readings should be taken after 5 days. Readings will vary until full cure is achieved.

SAFETY

UltraPlex™ SD S contains amine curing agents. Avoid skin contact. In case of eye contact or ingestion, contact a physician immediately. In case of skin sensitivity to these materials, use protective clothing and gloves.

MATERIAL SAFETY DATA SHEET

Material Safety Data Sheets are available. It is strongly recommended that they be read by all persons handling UltraPlex™ SD S.

If there are any questions on the use of this product, please consult our technical service department.

PERFORMANCE CHARACTERISTICS

BOND STRENGTH TO CONCRETE

METHOD: ASTM D4541

TYPICAL VALUE: Exceeds tensile strength of concrete (concrete fails first)

FILM HARDNESS, SHORE D

METHOD: ASTM D2240

TYPICAL VALUE: 70-75

COMPRESSIVE STRENGTH

METHOD: ASTM D696

TYPICAL VALUE: 14,864

FLEXURAL STRENGTH

METHOD: ASTM D790

TYPICAL VALUE: 248

ELECTRICAL PROPERTIES

SURFACE RESISTANCE AT 100 V.

METHOD: ANSI/ESD 7.1

TYPICAL VALUE: 1.0×10^6 - 1.0×10^9

BODY VOLTAGE DECAY

METHOD: Wearing ESD shoes (1,000 V. — 50 V.)

TYPICAL VALUE: < .4 seconds

BODY VOLTAGE GENERATION

METHOD: Modified AATCC 134-1979 (with ESD shoes)

TYPICAL VALUE: < 25 V.

SHELF LIFE

2 months from date of manufacture.

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