



# DURALTEX®

Versatile Epoxy Flooring Binder



## APPLICATION GUIDELINES

### DESCRIPTION

DURALTEX is a multi-purpose, 100% solids, two component epoxy binder useful in a wide variety of industrial and decorative floor applications.

### FEATURES/BENEFITS

#### **User friendly**

- Very low odor
- Long working life
- Excellent application characteristics

#### **USDA Compliant**

#### **High strength**

#### **Low modulus**

- Abrasion & impact resistant

#### **Good chemical resistance**

#### **Decorates while reducing maintenance**



#### **Multi-purpose**

- Primer
- Floor coating
- Broadcast and Broadcast-chip floors
- Slurry floors
- Trowel-down floors
- Repair mortar (mixed with fine aggregate)

#### **100% Solids, VOC compliant**

#### **Moisture insensitive**

#### **Standard/Custom Colors & Clear**

### USES

- Industrial & commercial installations
- Manufacturing plants, workshops
- Laboratories, boiler rooms
- Food & beverage production areas
- Animal rooms
- Kitchen, lavatories and shower facilities
- Warehouses and loading docks
- Educational, correctional and health care facilities



## SURFACE PREPARATION

A properly prepared surface is essential to a successful application. The surface must be structurally sound, clean and free of grease, oil, curing compounds, soil, dust and other contaminants. New concrete and masonry must be cured 28 days. Surface laitance must be removed. The preferred method of surface preparation is abrasive blasting. Smooth, pre-cast and formed concrete surfaces should be cleaned, roughened and made absorptive by abrasive blasting. If it is not possible to abrasive blast, an adequate surface can be prepared by acid etching with 15% hydrochloric acid. After etching, flush with copious amounts of water to neutralize and clean the surface. Allow concrete to dry before application. Following surface preparation, the surface strength should have a minimum surface strength of 200 psi when tested with an Elcometer or similar pull tester (ASTM D4541). Do not apply DURALTEX if there is excessive moisture in the concrete. If in doubt check moisture content using the "Visqueen" test (ASTM D4263). A test area is recommended to confirm surface preparation. When coating steel, all contamination should be removed and the surface prepared to a "near white" finish (SSPC SP10) using clean dry blasting media.

## MIXING INSTRUCTIONS

Mix DURALTEX using a low speed drill motor and a "Jiffy" type mixer. Mix Part A and Part B separately for approximately one minute. Combine two parts by volume of Part A and one part by volume of Part B and mix thoroughly for 3–5 minutes. Scrape the bottom and sides of the containers at least once during mixing. Mix just enough material that can be used within the working life. Do not aerate the mix.



## APPLICATION PROCEDURES

### **FLOOR COATINGS**

(10 – 20 mils)

Apply properly mixed DURALTEX to the prepared surface by brush, short nap roller or notched squeegee. Apply at a coverage rate of 160 ft.<sup>2</sup>/gal. to produce a 10 mil coating. A second coat is recommended for most industrial applications. The second coat can be applied after the first coat becomes tack free (5–8 hours) but no later than 24 hours after application of the first coat. The use of a primer will improve performance in marginal conditions.



### **BROADCAST FLOORS ("Broom and Seed")**

(1/16" – 1/8")

The Broadcast method, used with pigmented DURALTEX and silica sand, can be used to construct solid colored, skid resistant floors. This technique can also produce a wide variety of multi-colored floors using DURALTEX Clear and color quartz aggregate. The application procedure is similar for both systems. DURALTEX is applied at a coverage rate of 90–110 ft.<sup>2</sup>/gal. (ca. 15 mils) to the prepared substrate using a brush, short nap roller or notched squeegee. While the material is still wet, broadcast to excess clean dry aggregate into the resin – typically 20/40 mesh silica for solid color floors and colored quartz aggregate for multi-colored floors. Aggregate application rates are 0.5–1.0 lbs./ft.<sup>2</sup>. Allow the resin to cure. Sweep or vacuum excess. Repeat these steps until the desired thickness is achieved. Aggregate size and shape will affect final surface texture. Apply a seal coat of DURALTEX Clear for color quartz aggregate floors or pigmented DURALTEX for solid color floors at a coverage rate of 90–110 ft.<sup>2</sup>/gal. In areas exposed to sunlight or high intensity artificial light, color stability is improved if the seal coat is an aliphatic urethane such as DURAL 1004C, applied at 150–200 ft.<sup>2</sup>/gal.



Aggregate is “broadcast” into wet resin

## **BROADCAST VINYL CHIP FLOORS**

(1/32” – 1/16”)

Apply a prime coat of properly mixed DURALTEX Clear to the prepared substrate, using a brush, short nap roller or squeegee at a coverage rate of 200–225 ft.<sup>2</sup>/gal. Allow to cure for 6–8 hours, but no longer than 24 hours before proceeding. Then apply properly mixed pigmented DURALTEX resin by brush, short nap roller or squeegee at a rate of 75–150 ft.<sup>2</sup>/gal. While the material is still wet, broadcast clean, dry Colored Vinyl Chips to the desired concentration (typically 1/4 - 1/2 pound/ft.<sup>2</sup>). Allow to cure overnight. If desired, sand to smooth surface, vacuum thoroughly and apply a topcoat of DURAL 1004C Clear Gloss or Clear Satin, at a rate 300–400 ft.<sup>2</sup>/gal. Allow to cure 24 hours before opening to traffic.

## **SLURRY APPLICATIONS**

(1/16” – 1/4”)

Apply a prime coat of DURALTEX Clear to the prepared substrate using a brush or short nap roller at a coverage rate of 200–225 ft.<sup>2</sup>/gal. Do not allow the prime coat to become tack free. Mix pigmented DURALTEX as described in “Mixing Instructions.” Prepare a slurry by slowly adding Tamms Slurry Filler or 60/70 mesh silica aggregate to DURALTEX while mixing with a “Jiffy” mixer. The slurry proportions are 12–15 pounds of aggregate for each gallon of DURALTEX. Mix an additional 3–5 minutes after all of the aggregate has been added to the mixed resin. Do not aerate the mix.

Pour the slurry on to the primed surface and spread using a notched squeegee or gauge rake. Spiked shoes are recommended. A slurry consisting of one gallon of mixed resin and 15 pounds of aggregate will cover approximately 20 ft.<sup>2</sup> at 1/8” thickness. Backroll with a short nap roller. Broadcast clean dry 40–60 mesh silica to excess into the wet slurry coat. Aggregate size and texture will affect final surface texture. Allow to cure and remove excess aggregate by broom or vacuum. Apply a seal coat of DURALTEX with a flat squeegee or roller at a rate of 140–160 ft.<sup>2</sup>/gal. Allow to cure for 24 hours before opening to traffic.

## **TROWEL DOWN METHOD**

(1/8” – 1/4”)

The trowel down method can be used to create solid color floors using pigmented DURALTEX and silica aggregate, or a variety of multicolored floors using DURALTEX Clear and colored quartz aggregate. The application methods are similar. Apply a prime coat of mixed DURALTEX Clear to the prepared surface at a coverage rate of 200–225 ft.<sup>2</sup>/gal. Lightly broadcast 20/40 mesh silica sand (1/4 lb/ ft.<sup>2</sup>) into the wet resin. Allow the prime coat to become tack free, typically 5–8 hours. Prepare a mortar consisting of mixed DURALTEX and a trowel grade aggregate blend or color quartz aggregate. Typical proportions are 4.5 parts of aggregate by volume to 1 part by volume mixed DURALTEX. Large quantities of epoxy mortars are typically mixed in a mortar mixer; smaller quantities can be mixed in a pail using a mortar blade mixer and slow speed drill. Gradually add the aggregate to the mixed resin. Mixing times are typically 3–5 minutes after all of the aggregate has been added. Ensure that the aggregate has been thoroughly mixed. Place the mortar on to the tack free primed surface no later than 24 hours after priming. Screed the mortar to the desired thickness, trowel finish and allow to cure for 12–18 hours. A mortar consisting of one gallon of resin and 4.5 gallons of aggregate will cover approximately 45 ft.<sup>2</sup> at 1/8” thickness. Apply a seal coat of DURALTEX at a rate of 150–200 ft.<sup>2</sup>/gal. In areas exposed to sunlight or high intensity artificial light, improved color stability is achieved if the seal coat is an aliphatic urethane such as DURAL 1004C, applied at a rate of 150–200 ft.<sup>2</sup>/gal.

## **OTHER APPLICATIONS**

### **PRIMER**

DURALTEX flooring applications do not require a primer other than as described in this “Application Guideline”. (For a discussion of primers and their use in epoxy coating, flooring and overlay applications, see “Tamms Tips” at <http://www.tamms.com>.) DURALTEX Clear diluted with a small amount of xylene is an excellent epoxy primer for use in applications where priming is required to ensure a good bond to the substrate. Thoroughly mix up to one quart of xylene with three gallons of mixed DURALTEX Clear.

### **REPAIR MORTAR**

An epoxy repair mortar can be produced by blending DURALTEX with clean dry silica sand. This mortar is useful for rapid turn around concrete repairs from feather edge to one-half inch. Prepare the mortar by blending three parts by volume of 20/40 mesh sand to one part by volume mixed DURALTEX resin. A mortar mixer should be used for large volumes. A mortar blade mixer and a slow speed drill are suitable for small volumes.

## APPLICATION DETAILS

**COVE BASE:** To provide a seamless integral floor system at the floor/wall transition, a cove base of 2 to 6 inches may be required. DURAL 340 NS or DURALTEX mixed with aggregate can be used as a cove base. **STATIC CRACKS AND NON-EXPANSION JOINTS:** Before application of the DURALTEX floor methods, static cracks and other non-moving joints should be routed, cleaned and filled with a semi-rigid epoxy such as DURAL 340. Depending on the specific project, correct implementation of other application details, such as floor terminations, floor/drain detail, etc. may be required. For further information contact Euclid Technical Service.

## CAUTIONS

Ambient temperature during DURALTEX floor applications should be between 50°F and 90°F. Substrate temperature should be at least 50°F and rising. Working time and cure time will decrease as the temperature increases. DURALTEX will yellow upon prolonged exposure to ultraviolet light and high intensity artificial lighting. Application of a test area is recommended to confirm final appearance and texture of the floor with the facility owner.

## COVERAGE RATES

The coverage rates contained herein are approximate and for estimating purposes only. Surface texture, porosity, temperature and other factors will influence actual material requirements. Estimated coverage rates do not include spillage or waste.

## CLEAN-UP INSTRUCTIONS

Clean application tools and mixing equipment with a solvent such as xylene or Aromatic 100 immediately after use. Clean drips or spills with the same solvent while still wet. Hardened DURALTEX will require mechanical abrasion for removal.

## ENVIRONMENTAL AND SAFETY PRECAUTIONS

**Component "A":** Contains epoxy resin. Vapors can cause respiratory irritation. Skin and eye irritant. Can cause sensitization after prolonged or repeated exposure. Use of safety goggles and chemical resistant gloves is recommended. Use only with adequate ventilation.

**Component "B":** CORROSIVE. Contains amines. Contact with eyes or skin may cause severe burns. Can cause sensitization after prolonged or repeated use. Use of safety goggles and chemical resistant gloves is highly recommended. Use only with adequate ventilation.

**First Aid:** In case of skin contact, wash immediately and thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. Consult physician immediately. For respiratory problems, remove person to fresh air.

**Disposal:** Collect with absorbent material. Dispose of in accordance with current local, state and federal regulations. Industrial Use Only. Keep away from heat, sparks, and open flame. Keep out of reach of children. Consult Material Safety Data Sheet for complete product safety information.

**EMERGENCY RESPONSE:**

1-800-424-9300 (CHEMTREC)

1-800-321-7628 (EUCLID)

## PACKAGING

3 gallon cases, 15 gallon units, 150 gallon units

## TECHNICAL SERVICE

For application procedures or surface conditions not specified above, please contact:

The Euclid Chemical Company  
19218 Redwood Rd.  
Cleveland, OH 44110  
800-321-7628 Fax: 216-531-9596  
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