

## **Dur-A-Flex, Inc.**

95 Goodwin St.  
East Hartford, CT 06128  
1-800-253-3539

## **DUR-A-GLAZE NOVOLAC**

Superior Chemical Resistance - High Heat Resistance

### **DESCRIPTION**

***DUR-A-GLAZE NOVOLAC EPOXY*** is a premium quality protective coating and aggregate binder designed to provide the optimum corrosion protection against chemicals, acids, solvents, high temperature, etc. Tests and in-the-field experience on floors indicate that Dur-A-Glaze Novolac Epoxy is resistant to most solvents (including methylene chloride spills) and most organic and inorganic acids including 98% sulfuric acid. In addition to the superior chemical resistance, heat distortion is also greatly improved, it resists high heat better than a high quality aromatic amine hardener like CR-4. Intermittent exposure up to 250°F (122°C) has little effect.

### **BENEFITS**

- Easy to use 1:2 Mix Ratio
- Cure High Gloss, No Blush
- Cures on Damp Surface
- Clear, Can Be Pigmented
- Superior Chemical Resistance
- Superior Solvent Resistance
- Superior Stain Resistance
- High Heat Distortion Temperature

### **TYPICAL USES**

DUR-A-GLAZE NOVOLAC is recommended for Shop Floor Epoxy Flooring and Dur-A-Crete Epoxy Flooring. It may also be used as a protective top coating for other epoxy binders to provide improved chemical resistance at the surface. The heat distortion will not be significantly improved by top coating only, but chemical and solvent resistance will be greatly enhanced. Best results are obtained when the Dur-A-Glaze Novolac Epoxy is used as a clear top coat.

- Food Processing Plants
- Breweries
- Cheese Plants and Dairies
- Citrus Juice Plants
- Bottling Plants
- Commercial Kitchens
- Sugar Refineries
- Pickling and Brine Rooms
- Pharmaceutical Plants
- Chemical Storage Warehouses
- Metal Plating and Pickling Rooms
- Acid Cleaning Bath Areas
- Battery Charging Rooms
- Acid and Caustic Tank Exteriors
- Waste Treatment Plants
- Chemical Laboratories

- Pulp & Paper Mills
- Silk Screen Printing Plants

### **SPREAD RATES**

Varies with type of use. Generally, its use is similar to Dur-A-Glaze #4. As a coating Dur-A-Glaze Novolac epoxy can be applied at 200 sq. ft. per gallon to yield approximately 8 mils DFT. As a binder its spread rate can be as little as 5 sq. ft. per gallon depending on whether it's used in a broadcast, slurry or a trowel application.

### **LIMITATIONS**

1. Do not apply on floors below 55°F or when ambient temperature is higher than 90°F.
2. Due to the rapid setting characteristics, use Trowel-eeze to clean face of trowel when applying Dur-A-Crete Epoxy Flooring.
3. Full chemical resistance can be expected after a cure period of 7 days at 70°F.
4. Dur-A-Glaze Novolac is not recommended as a topcoat for light colored Dur-A-Quartz floors.

### **COLORS**

DUR-A-GLAZE NOVOLAC EPOXY available in clear and standard colors except white. (Refer to color chart in "Dur-A-Gard Floor & Wall Epoxy" Snapshot.)

### **PACKAGING**

DUR-A-GLAZE NOVOLAC EPOXY is available in 1 gallon cans, 5 gallon pails, and 50 gallon drums.

### **STORAGE**

Store in a dry area at or above 55°F. Avoid excessive heat. The shelf life is 1 year in unopened original containers.

### **PHYSICAL PROPERTIES AND TECHNICAL INFORMATION**

Solids Content, clear no pigment... 100%  
Mix ratio, by volume... 1 part hardener (A), 2 parts resin (B)  
Pot Life at 70°F... 15 - 20 minutes  
Tack Free Time at 70°F (ready for re-coat)... 4 - 5 hours  
Cure Time for Traffic at 70°F... 24 hours  
Minimum Temperature for Application... 55°F  
Cured Film Thickness... 16 mils @ 100 sq. ft./gallon  
Hardness, Shore D... 86 - 90  
Heat Resistance Limitation... 250°F (122°F)  
Compressive Strength... ASTM C-579... 14,000 psi  
Flexural Strength... ASTM C-580... 5,500 psi  
Tensile Strength... ASTM C-307... 2,500 psi  
Flexural Modulus of Elasticity..ASTM D-790... 1.95 x 10<sup>6</sup> psi  
Bond Strength... ACI-403-PP... 420 psi (concrete fails)  
Indentation... MIL-D 3134-F... No Indentation  
Abrasion Resistance... ASTM D-1044.  
C-10 Wheel, 1,000 gm load, 1,000 cycles... 0.075 gm weight loss  
Flammability... ASTM D-635... Self-Extinguishing. Extent of burning less than 0.35 in  
Water Absorption... ASTM D-570... 0.05%, 24 hours in water  
Thermal Coefficient of Linear Expansion... ASTM D-696... 2.2 x 10<sup>-5</sup> in/in/°F

IMPORTANT: The technical data presented here is based on tests we believe to be reliable but are made without expressed guarantee to its accuracy as it may apply to a particular plant use. The in-service results obtained can be affected by the varying conditions, which are beyond our control or predictability. This information should be supplemented by in-service testing under actual conditions of exposure.

*Before using any Dur-A-Flex, Inc. product, be sure the Material Safety Data Sheet is read and understood.*

## **SECTION 09670 or 09700**

### **PART 1 GENERAL**

#### **1.01 SCOPE**

- A. Provide all labor and materials for a seamless, chemical resistant, epoxy flooring material, including all surface preparation, primers, and finish coats.
- B. Related work specified elsewhere:
  - 1. Concrete - Division 3
  - 2. Thermal & Moisture Protection - Division 7

#### **1.02 ACCEPTABLE MANUFACTURER AND INSTALLER**

- A. DUR-A-FLEX, Inc. 1-800-253-3539
- B. Manufacturer approved Installer, who has technical qualifications, currently certified in writing, and facilities to install specified systems.

#### **1.03 DELIVERY AND STORAGE**

- A. Material shall be delivered to job-site in clean, clearly labeled containers and inspected by installer prior to start of job.
- B. Material shall be stored in a dry, enclosed area protected from the elements. Temperature of storage area shall be kept between 60° and 90°F.

#### **1.04 ENVIRONMENTAL REQUIREMENTS**

- A. New concrete shall be cured no less than 28 days under good conditions. Concrete subfloors on or below grade shall be properly equipped with vapor barriers and perimeter drains.
- B. Adequate utilities, including electric, water, heat (between 60° and 90°F) and lighting of no less than 80 ft. candles measured at floor surface to be supplied by Owner/General Contractor.

**SPECIFIER NOTE: Heat and light are extremely important parts of the installation. Usually these utilities are functioning before epoxy finishes are scheduled for installation, however in some cases the epoxy coating shall be installed prior to equipment, fixtures and even walls in some cases. Lack of these necessities can and will spoil a good installation. Without heat the curing process can be extended or even stopped. Without adequate light even the best mechanic cannot provide a quality finish.**

- C. Work area shall be free of other trades during, and for a period of 24 hours, after floor installation.
- D. Protection of finished floor from damage by subsequent trades is the responsibility of [Installer] [Owner] [General Contractor].

#### **1.05 WARRANTY**

- A. Contractor to submit a [one] [two] [three] year warranty against defects in material and workmanship upon completion of installation.

## **PART 2 PRODUCTS**

### **2.01 PRODUCT DESCRIPTION**

[1/8"] [NOVOLAC SHOP FLOOR] Multiple-component, Heavy Duty, Industrial flooring systems as manufactured by DUR-A-FLEX, Inc. **1-800-253-3539.**

### **2.02 PHYSICAL PROPERTIES**

**[Insert technical data from the appropriate product data sheet]**

### **2.2 PRODUCT PACKAGING**

A. All materials used shall be precision mixed on site with manufacturer supplied mix and measure apparatus to ensure a timely, accurate mix ratio and minimize waste.

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

A. Concrete preparation to include use of [a steel shotblast machine] [a solution of muriatic acid] to create a profiled substrate, combined with "dust-free" diamond grinding for all edges and areas where shotblast machine is unable to reach.

**SPECIFIER NOTE: For maximum bond strength, steel shotblasting is always recommended. See "Preparation/Application Details" Showcase for details on specific substrates.**

### **3.02 PRODUCT INSTALLATION**

- A. Floor installation shall strictly adhere to manufacturer's current written instructions.
- B. Apply 16 mil flood coat of pigmented DUR-A-GLAZE NOVOLAC with a notched squeegee and back-roll with a quality non-shed roller.
- C. Broadcast natural quartz to excess, and allow to cure.
- D. Sweep up excess Colored Quartz.
- E. Repeat steps B & C.
- F. Apply first top coat of pigmented DUR-A-GLAZE NOVOLAC at 100 - 125 sq. ft. per gallon, allow to cure.
- G. Apply finish coat of pigmented DUR-A-GLAZE NOVOLAC at the rate of 200 square feet per gallon.
- E. All garbage and debris shall be properly disposed of.

**SPECIFIER NOTE: DUR-A-FLEX broadcast flooring systems are a relatively simple combination of 100% solids epoxy and colored quartz. Selecting the proper type of epoxy will require some owner input. Specify DUR-A-GLAZE #4 REG - for general use, UV - for exterior or areas with high intensity lighting, Kitchen - for areas subject to thermal shock and boiling oils, CR4 - for moderate chemical resistance, Novolac - for harsh chemical resistance and constant heat exposure.**

**PERFORMANCE TOPCOATS can be specified to increase cleanability, gloss retention, chemical resistance, stain resistance. (See "High Performance Topcoats" Snapshot.)**

### **3.03 DETAILS**

- A. Moving cracks and joints shall be thoroughly routed and vacuumed clean, then filled with DUR-A-FILLER #2.
- B. Surface deviations to be pre-patched with patching compound comprised of DUR-A-GLAZE #4 and No-Sag #2 or Q28 Quartz.
- C. A 4" integral cove base to be installed at perimeter walls.

D. Prime surface with Elast-O-Coat membrane as per manufacturer's recommendation.