

# Specifications for 60 mil Floor Coating System - Moderate Wear

## Part 1 : Scope

### Product and Application

This specification describes the application of a two part epoxy floor coating for medium vehicular traffic areas.

#### 1.1 Acceptable Manufacturers

**ICO Guard Coating**, as manufactured by International Coatings of Franklin Park, IL or approved equivalent epoxy resin floor coating.

#### 1.2 Performance Criteria

1. Tensile Strength (ASTM D-638)
  - Minimum : 1500psi
2. Tensile Elongation (ASTM D-638)
  - Minimum: 9%
3. Hardness, Shore D (ASTM D-2240)
  - Maximum: 80
4. 60° Gloss
  - Minimum: 100
5. Bond Strength to Quarry Tile
  - Minimum: 1000 psi
6. Vapor Transmission Rate (ASTM E-96)
  - Maximum: .03 perms
7. Taber Abrasion C517, 1000g 1000 Cycles (ASTM D-1044)
  - Maximum: 106 mg loss
9. % Solids
  - 100%
10. Chemical Resistance: must withstand constant immersion for at least 72 hours to the following chemicals: 30% nitric, 80% sulfuric, 85% phosphoric, 37% hydrochloric, 50% sodium hydroxide, brake fluids, skydrol, and kerosene.

#### 1.3 Materials

1. Component "A" shall be an epoxy resin of the epichlorohydrin bisphenol A type
2. Component "B" shall be a blend of cycloaliphatic amines with non- blushing characteristics.
3. All material shall be solvent-free.
4. Material shall be available in a fast cure ("FC") version for applications down to 40F

#### 1.4 Surface Preparation

All new concrete surfaces that will be covered with the systems specified herein should have received a steel trowel, light broom finish and shall be free of all form release agents, curing agents or sealer applications. Concrete shall have cured a minimum of 28 days. If this is not practical, then consult manufacturer for recommended procedures.

## A. General

1. The moisture vapor transmission rate of any slab-on-grade shall be checked using a calcium chloride test kit. The measured vapor transmission rate shall not exceed 5 pounds. Consult manufacturer for further directions.
2. Remove any oil or grease spots with appropriate degreaser, followed by pressure washing.
3. All new or old concrete should be lightly brush- blasted to obtain minimum 80 grit profile. Remove any old, poorly adhering coating.
4. All open cracks 1/8" and greater should be v-notched to a 1/2" width by 1/2" depth and cleaned of any debris, then filled flush to surface with **ICO Gel** epoxy crack filler.

## 1.5 Material Application

### A. Priming

1. No priming is required; however, for relatively porous concrete, one coat of ICO Primer LV is recommended to help reduce outgassing.

### B. Coating Application

1. Mix **ICO Guard Coating** Part A and B in the specified prescribed amounts using a low speed (<750 rpm) jiffy-style mixer for at least 30-60 seconds, or until completely uniform.
2. Immediately pour contents out onto the floor in a ribbon pattern and spread with a flat squeegee at a coverage rate of 80SF/gal followed by back rolling with a fine (1/4") nap roller. Broadcast in 30-40 mesh silica quartz to refusal (approx. 1/2#/SF). Allow to dry hard.
3. Vacuum excess, loose sand, followed by screening or lightly sanding floor to knock off jagged edges.
4. Apply second coat of **ICO Guard Coating** at 80SF/gal for total thickness of about 60 mils.

### C. Expansion Joints

1. Do not cover over expansion joints.
2. Remove any existing joint material beforehand and apply coating into joints with brush.
3. Fill joint with **ICO Lastic Gun Grade** flush with surface.

## 1.6 Protection of Finished Work

1. Prohibit foot traffic on floor for 24 hours after laying (at 70°F). At 50°F, this time should be extended to 48 hours.
2. Rinse off any chemicals that may come in contact with the freshly laid (for first 7 days) floor immediately.

## 1.7 Cleanup

- A. Dispose of all unused and waste materials.
- B. Tools can be washed in warm, soapy water when wet, but after drying, can only be cleaned by grinding or with a paint stripper.
- C. Unused resin can be set off with proper amount of hardener and disposed of in regular trash bins.

## 1.8 Warranty

- Installer shall provide a one year warranty against chemical attack, normal wear and tear and loss of adhesion.