

Epoxy flooring

INTRODUCTION:

EPOXY Flooring is a two part high solids solvent free epoxy phenolic resin based coating system designed for hard wearing, smooth surface finish for floors, walls and on steel structures. Nonskid surface finish can be achieved on floor, if required.

FEATURES:

- 1) Hard Wearing
- 2) Non Dusting
- 3) Excellent Surface Finish
- 4) Non Smelling
- 5) Good Aesthetics
- 6) Highly Chemical Resistant

APPLICATION:

1. Stir well before mixing Part A and Part B and mix in the prescribed ratio.
2. Apply one coat of EPOXY primer on the clean and dry surface.
3. EPOXY COATING (HYB) should be applied on the surface by brush or roller within 24 hrs. After application of primer coat it should be allowed to air dry for min. 4 hrs. Preferable in a dust free atmosphere.
4. Apply min. 2 coats with the intercoat interval of 6-8 hrs.

PRODUCT SPECIFICATIONS:

Application	Brush, Roller
Mixing Ratio	As Directed on Packing
Pot Life	30 Mins.
Drying Time	Touch Dry- 30 Min, Hard Dry – 6 Hrs.
Intercoat Interval	6-8 Hrs. Min.
Dry Film Thickness	125-150 Microns/per coat depending on porosity
Covering Capacity	6-8 sq.met/kg per coat depending on porosity, roughness & method of application.
Color Shades	All Standard Shades

Application Industries :

- Automobile/Engineering Industries
- Hospitals, Pharma & food Industries
- Showrooms & Workshops
- Parking Areas
- Electrical Industry
- Nuclear Power Plants
- Textile & Roller Mills
- Dairy Industry
- Ammunition Factories
- Star hotels
- Chemical resistant coatings

Advantages :

- Monolithic, easy to clean low maintenance floors
- Available in pleasant colors
- Durable, resistant to abrasion & vehicular movement
- Excellent mechanical properties
- Excellent adhesion to concrete, kota & mosaic
- Impermeable to water, oils, coolants & chemicals
- Excellent resistance to microbial growth

ABPENC



Polyurethane Flooring

Polyurethane Floor Coating is highly demanded among the clients for its superior performance like Gloss & color retention. The Polyurethane Floor Coating is used in heavy traffic areas for numerous industrial and commercial applications. Available in an array of colors, this Polyurethane Floor Coating can be applied on new & old floors of concrete, wood and mild steel.

Advantages

- Excellent protection against abrasion
- Provide hygienic floor
- Easy to clean
- Hard wearing

Salient Features

- Good hardness
- High flexibility
- Adhesion
- Abrasion resistance
- Impact resistance



ESD Flooring



Does it do any good to have esd chairs if the floor is not esd?

A chain is only as good as its weakest link. In the case of an electrical chain, the weak link is the result of a breach in conductivity. A loose or disconnected wire is the most simple example.

Think of a person's body as an isolated conductive object (AKA a capacitor) capable of storing static electricity. Kind of like a two-legged Van-de-Graff generator sitting on static generating carpet with no place to discharge. Think of the conductive chair as the same thing. The chair might be conductive but unless it is sitting on a conductor like an ESD floor, there's a break in the chain. Remember, charge can not discharge through plastic or other electrically insulative flooring materials. When the static charged body approaches and then sits in the conductive chair, the static charge on the body will immediately flow to the chair until both the body and the chair share the same charge. We call this, sharing potential. The charge will not go away because there is place for it to go. Charge can only flow between conductive objects and since the floor is non-conductive, the charge will remain static. In the scenario you have described, the chair and the person remain ungrounded because they are isolated from ground. There is no conductive path through the floor. If either the person or the chair make contact with electronic equipment - both will discharge to the equipment simultaneously. Without a conductive floor, a conductive chair is nothing more than another charged body looking for a place to discharge. Kind of like an unanticipated accident waiting to happen.

ESD properties of bare concrete

Bare concrete often exhibits antistatic (and dissipative or conductive) tendencies depending on the time of year and the amount of moisture vapor permeating through it. The problem with designating concrete as "the ESD floor" is the uncertainty of its resistive properties. Since the dissipative tendency is drawn directly from the moisture levels in it, concrete has at best - unpredictable conductivity. This conductivity is not inherent like a carbon filled

material. It is subject to changing environmental and geological conditions as well as weather and freeze/thaws.

Keep in mind that ANSI/ESD S 20-20 recommends a system resistance of less than 35 megohms from the person through the controlled footwear floor and on to ground. We know that as resistance increases, charge dissipation performance decreases. Just because something might exhibit antistatic tendencies does not mean that it will also discharge a human being properly. Discharge or dissipation is directly related to conductivity and not antistatic properties. Calling a floor "antistatic" only means that floor will not contribute to triboelectrification. It does not mean that it will also act as a ground.

We have measured the conductivity of some concrete that found to be too conductive only to see that same concrete measure almost insulative during the span of the same year. This broad performance differential would be a hard sell to a knowledgeable auditor (or customer) as part of any ISO certification process. Bare concrete with high conductivity usually means a damp and often dusty building.

Difference between static dissipative and conductive flooring?

First, it is important to understand that an ESD floor should never be purchased based upon whether it is called dissipative or conductive. These terms are inappropriate for specifying permanent static control flooring. Ideally, a floor should be specified based upon both its propensity to tribo-charge people and its electrical resistance to ground (measured in ohms or meg-ohms) when installed. Descriptions like dissipative and conductive do not adequately describe these properties. When evaluating an ESD floor for its ability to control static, ESD engineers verify that:

- 1) The floor will not generate more than 100V when someone walks on it;
- 2) The total system resistance of the person, footwear, walking surface and ground is less than or equal to 3.5×10^7 or 35 meg-ohms maximum.

The word antistatic does not designate some special electrical resistance range. Antistatic merely refers to a material's propensity to charge other materials during contact and separation. If a floor has antistatic properties, it means that under a particular set of circumstances—say, a person walking across the floor wearing Rockport walking shoes—a significant static charge does not build up. If that same person walked across that same antistatic floor wearing leather-soled or athletic footwear, however, a static event might occur. If we were to focus on a particular set of conditions, as just described, we could end up with a floor that works *only under those conditions*, creating a situation that would be difficult to monitor or control. For this reason, we look at antistatic properties as part of a much bigger picture that includes electrical resistance to ground and tribo-charging performance at low relative humidity.

How floors are made conductive?

Most ESD floors are rendered electrically conductive by adding, blending or weaving carbon and graphite into standard flooring materials. Vinyl tile is made conductive by adding conductive carbon chips or veins into the vinyl raw materials used in standard vinyl flooring.

Carpets are made conductive by weaving in thousands of carbon-coated conductive fibers. Rubber is made conductive by adding either carbon powder or adding chemicals that reduce electrical resistance of regular rubber flooring. **Epoxy Flooring** utilizes several different methods for making the coatings conductive, including: fiber technology, conductive aggregate additives, carbon and graphite particulate blending and sometimes a combination of several in the same coating.

How long do conductive properties last?

A quality product should provide a lifetime of service. Likewise, conductive properties should last for the life of the product. Some "dissipative" vinyl products, however, require regular recoating with antistatic floor finish in order to maintain acceptable electrical properties. These should be avoided unless the solution does not need to be a long-term one. Some ESD carpets require periodic applications of a topical treatment containing antistat. The problem with applying the antistat is that the maintenance crew doesn't always know when it is time to reapply the antistat or when the humidity conditions might be too low for adequate performance from a surface additive. Fortunately, there are many products that will provide unlimited electrical performance without any use of maintenance additives.

If something is antistatic, does that mean it will conduct electricity?

As stated in the earlier question, antistatic and conductive are mutually exclusive terms. Antistatic has to do with properties involved in charging of materials when they contact and separate. Conductive properties refer to the ability of a material to conduct an electrical charge.

Could a conductive floor endanger people working with electrical equipment?

As long as the ESD flooring has a resistance to ground of over 25,000 ohms, the floor can be used in most factory and hospital situations. Operating rooms, which often house electrical defibrillation equipment, require floors to have resistance to ground ratings of over 25k ohms. A simple calculation that takes into consideration the highest voltage and current of electrical equipment used in a particular application will determine what is and what is not safe. But most standards recognize the 25k ohm number as a safe lower parameter.

Do ESD tiles need to touch in order to be grounded?

Electrical bonding between ESD floor tiles is achieved from the conductive adhesive and not as a result of individual tile to tile contact. The adhesives used in conductive installations is highly conductive and provides excellent continuity across the entire floor. Conductive adhesives take the place of so-called copper grounding grids beneath the floor. The conductive adhesive must be attached to some form of ground to meet relevant specifications.

How does relative humidity affect the performance of an ESD floor?

Static generation occurs more easily when the climate is dry. Static also stores better on surfaces when the air is dry. Sometimes an ESD floor will appear to perform when the

humidity is over 40 percent. This is quite normal with carpet. Any ESD carpet should be tested at least as low as 12 percent relative humidity. Unless the carpet is loaded with carbon fibers, most carpets will fail below 20 percent RH.

Can new floors be installed over old?

Almost any floor can be installed over an old floor as long as the old floor is in good condition and well-bonded to the sub floor. Some floors are much easier and less risky to install over old floors. Vinyl, for example, can be installed over existing vinyl. However, vinyl is stiff and unforgiving—it could delaminate if the adhesive does not cure well or if the surface is slightly uneven. The possibility of failure is much greater installing vinyl over vinyl than it would be if ESD carpet were installed over old vinyl. Carpet tiles are flexible and the release adhesive bonds extremely well to old vinyl and epoxy. Many installers prefer installing carpet tiles over old vinyl rather than over new concrete. Often, the choice of installing over old floors involves a decision to avoid removing old vinyl because it contains asbestos and the cost of removal might be a budget buster.

Rubber Flooring

- ISO,EN1177 certification
- 100% recycled SBR rubber and EPDM rubber flecks.
- Thickness:15-30mm
- Standard Color: red, blue, green, grey, black, custom color
- Recycled content, no slip, no odor, water proof, color fleck
- Shock absorption, Noise-reduction, Pressure resistance, Abrasion-resistance

Anti-static rubber floor:

Performance:

Strong flexibility, good electrode, drum machine sulfide production, smooth, glossy on the surface.

Application:

Widely used in electronics, printing and dyeing industry and pavement in high-requirement.

Parameter:

Specific gravity: 1.5-1.7g/cm³

Tensile strength:

3Mpa

Elongation:

250%

Hardness:

65 +/- 5 Shores A

Product color:

Green, black, gray, red etc

Acid & Alkali-resistant Rubber floor**Thickness:**

1-50mm

Size:

10m*1500mm

Application:

Applied to punch acid & alkali bearing seals, washer, storage and protection of pipelines in the chemical, pavement of table in the lab.

Properties:

Anti slip, high Wearable
Oil proof, corrosion resistant
High temperature resistant