

ICO-ESD RESURFACER™

Product Description

ICO-ESD Resurfacer is a static dissipative seamless epoxy flooring system designed to prevent the buildup of a static charge on personnel or rolling equipment using the floor. The system is normally applied from 60-90 mils in three steps, including **ICO Primer LV** epoxy primer to seal the substrate, **ICO ESD Primer**, a conductive primer coat, and a top coat of **ICO ESD SL** for providing chemical and wear resistance. **ICO ESD Resurfacer** has a point-to-point or point-to-ground conductivity of one megaohm (10^6) to one thousand megaohms (10^9) with a typical reading falling somewhere between 10 and 100 megaohms.

As a 100% solids epoxy, similar in chemical resistance and physical properties to our "**ICO-Guard**" product line, our **ICO ESD Resurfacer** offers excellent chemical resistance to moderate concentrations of acids, caustics and solvents. It also has enhanced resiliency for superior impact resistance. It is available in bright, reflective colors and dries to a glossy, easily maintained finish that can be cleaned by damp mopping and occasional buffing. It has excellent adhesion to damp, as well as dry concrete, wood, metal and other masonry surfaces.

Typical Application

ICO-ESD Resurfacer is used in operations where dissipation of static charge is critical, such as in computer chip-making facilities, other electronic processing plants, cleanrooms and hospital operating rooms. It is also desirable in dry process areas where grain or flour is present, especially in low humidity environments. It provides a seamless, highly durable finish, compared to conventional vinyl tile conductive squares that need constant waxing and offer numerous joints to entrap contaminants. Compared to conventional thin film coatings, **ICO ESD Resurfacer** offers substantially greater wear resistance with lower maintenance.

For conductive applications (less than one megaohm), our **ICO Conducto Floor** applied at 3/16" thickness or greater is available in black colors only.

Chemical Resistance

Consult the **International Coatings Chemical Resistance Chart** under "**ICO Guard**".

Physical Properties

Tensile Strength (ASTM C-307)	: 3908 psi	Vapor Transmission Rate (E-96)	: .03 perms
Tensile Elongation (C-307)	: 6.9%	Water Absorption (D-570)	: 0.2% in 24 hrs.
Compression Strength (C-579)	: 6170 psi	Taber Abrasion CS 17 (D1044)	: 105 mg loss
Hardness, Shore D (D-2240)	: 75	1000 cycles at 1 kg	
Bond Strength to Quarry Tile	: >1000 psi	Conductivity (at 200 volts)	: 10-100 megaohms
Flammability (D-635)	: Self Extinguishing	Static Coefficient of Friction Dry	: .77
		Static Coefficient of Friction Wet	: .46

Physical Characteristics

Density, lbs/gal.	ESD Primer		Mixing Ratios	ESD Primer			ESD SL		
	By Volume	By Weight		By Volume	By Weight	By Volume	By Weight		
Pt. A	9.4	10.5	Pt. A : Pt. B	2.2 : 1	2.4 : 1	2.2 : 1	2.7 : 1		
Pt. B	8.6	8.6	Aggregate : Liquid	NA	NA	1 : 2.6	1:1.7		
A&B Mixed	9.2	12.0							
Viscosity@77°F, cps	ESD Primer			ESD SL			ESD SL		
Pt. A	7600	11,200	Curing Times @ 50°F	50°F	70°F	90°F	50°F	70°F	90°F
Pt. B	300	300	Pot Life	60 min.	50 min.	30 min.	60 min.	50 min.	25 min.
A&B Mixed	2640	5500	Hard, Foot Traffic	30 hrs.	15 hrs.	5 hrs.	36 hrs.	15 hrs.	5 hrs.

Shelf Life: 1 year at 77°F in unopened containers

Color Availability

ICO ESD Primer: Black
ICO ESD SL: off white, gray, dark gray, red, beige, blue, green, black.

Packaging and Coverage Rates

ICO ESD Primer	1 gallon kit	160 SF (10 mils)
	4 gallon kit	640 SF (10 mils)
ICO ESD SL	4 gallon kit	140 SF (45 mils)

Installation

Please refer to our Technical Bulletin 118 for detailed instructions. Particular care must be taken to follow those instructions precisely to assure proper installation.

1. New concrete should be allowed to cure a minimum of 28 days or be checked with a rubber mat or plastic sheet to insure adequate cure.
2. All surfaces to be covered should be power washed, shot blasted or acid etched to present a clean, sound substrate to which to bond to.
3. The substrate temperature must be between 50°F and 90°F to assure proper application.
4. Any protrusions must be ground off, depressions filled with **ICO-Patch**, and open cracks filled with **ICO Grout**.
5. Saw cut a 1/4" deep x 1/4" wide x 4" long groove from the wall into the floor for insertion of a no. 8 gauge braided wire. Saw cuts should be made every 1000 SF or for each section of the floor divided by expansion joints.
6. Prime the floor with **ICO Primer LV FC** or **ICO Primer LV** at 200-300 SF/gallon. Allow to get tacky (1-2 hours for **ICO Primer LV FC**)
7. Set a no. 8 gauge braided copper wire strap in the saw cut, taking care not to coat the top of the wire with the primer.
8. Immediately coat with **ICO-ESD Primer** at 160 SF per gallon, making sure it fills to the top of the saw cut. Allow to dry.
9. Take spot checks with an ohmmeter to make sure the primer is conducting in the 250,000 to 5 million ohm range. Wear spike shoes to minimize dust.
10. Mix Part A and Part B of **ICO ESD SL** for one minute at low speeds (<750 rpm), then add bag of **ICO Fill ESD** and continue mixing for another minute until completely uniform. Pour out in ribbon fashion and spread at 140 SF per 4 gallon kit (for achieving a minimum thickness of 60 mils) with a notched squeegee. Backroll in two perpendicular directions with a rounded-loop polyethylene roller. Do not back roll after mix starts to gel.

Precautions

Avoid skin contact with Part A and Part B as they may cause skin irritation to some people. No special ventilation other than local air is required. Clean-up can be done with hot, soapy water before the material gels; otherwise a pain stripper is needed.

Product Specification

The specified area shall receive an application of **ICO ESD Resurfacer** as manufactured by **International Coatings, Franklin Park, Illinois**, consisting of one coat of **ICO ESD Primer** at 10 mils and one coat of **ICO ESD SL** at 50 mils thickness. The material shall be a 100% solids, low odor epoxy with enhanced resilience for thermal and mechanical shock protection. The finished system shall have a resistance of between 10^6 and 10^9 ohms. The system shall have a static coefficient of friction of .77 (dry) and .46 (wet). The material shall have a maximum hardness of 75 (Shore D). It shall resist attack by such chemicals as 37% hydrochloric, 50% caustic, 80% sulfuric, toluene, xylene and jet fuel.

Technical Assistance

Our many years of installation experience enable us to provide valuable input on not only proper material selection but also installation techniques that will help assure your satisfaction. We have qualified personnel to inspect your floors, analyze the cause of the problems and design procedures and specifications to prolong the useful life of your floors. We furnish detailed application specifications including drawings of necessary details to be used. We are prepared to offer job site instruction for your in-house maintenance crews or to work closely with your preferred applicator. We can also furnish a list of our network of **ICO** trained certified applicators.

The data, statements and recommendations set forth in this product information sheet are based on testing, research and other development work which has been carefully conducted by us, and we believe such data, statements and recommendations will serve as reliable guidelines. However, this product is subject to numerous uses under varying conditions over which we have no control, and accordingly, we do NOT warrant that this product is suitable for any particular use. Users are advised to test the product in advance to make certain it is suitable for their particular production conditions and particular use or uses.

WARRANTY - All products manufactured by us are warranted to be first class material and free from defects in material and workmanship.

Liability under this warranty is limited to the net purchase price of any such products proven defective or, at our option, to the repair or replacement of said products upon their return to us transportation prepaid. All claims hereunder on defective products must be made in writing within 30 days after the receipt of such products in your plant and prior to further processing or combining with other materials and products. WE MAKE NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE SUITABILITY OF ANY OF OUR PRODUCTS FOR ANY PARTICULAR USE, AND WE SHALL NOT BE SUBJECT TO LIABILITY FROM ANY DAMAGES RESULTING FROM THEIR USE IN OPERATIONS NOT UNDER OUR DIRECT CONTROL.

THIS WARRANTY IS EXCLUSIVE OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND NO REPRESENTATIVE OF OURS OR ANY OTHER PERSON IS AUTHORIZED TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF OUR PRODUCTS.



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