

Turn an Ordinary Floor into a High Performance ESD Safe Floor

ESD (electrostatic discharge) is an increasingly challenging problem for manufacturers of products containing electronics. Static electricity is generated in many ways. People, carts, and chairs generate static electricity as they walk or are rolled around. A simple touch from an operator in a non-static controlled environment can transfer thousands of volts of static electricity. For a person to feel the static discharge, it has to be over 3,000 volts, and modern miniature electronic components can be damaged by static discharges of 30 volts and less.

In high tech manufacturing facilities, there will be increasing demand for floor finish which is static dissipative. Desco's Statguard® and Staffree® Finishes can turn almost any existing floor into ESD safe flooring.

Desco provides expert ESD control information, superior products that meet today's S20.20 Standard, and technical support to serve this important niche market. Using standard maintenance procedures, Statguard® and Staffree® floor finish will create a quality ESD floor without sacrificing floor appearance.

YOU CAN RELY ON DESCO AS YOUR ESD EXPERTS:

- ✓ Statguard® & Staffree® meet today's S20.20 test requirements
- ✓ Desco has over twenty years of ESD experience
- ✓ Statguard® and Staffree® products are made in America at our Canton, MA facility
- ✓ Statguard® and Staffree® products are inventoried at Canton, MA and Chino, CA
- ✓ Extensive technical support available on line and by phone. Call 781-821-8370.

We produce all our floor care products at our Canton, MA facility

Desco has tested some of the most popular floor finishes. Evaluate the test results shown below and you will see that Statguard® and Staffree® are clearly the high-performance, low cost leaders.

Brand	Statguard®*	Staffree®*	Brand A*	Brand B*	Brand X*
Resistance in Ohms					
RTT (RH @ 10%)	2.00 x 10 ⁹	2.45 x 10 ⁸	5.4 x 10 ¹²	2.45 x 10 ¹⁰	9.7 x 10 ¹¹
RTT (RH @ 50%)	4.90 x 10 ⁷	3.04 x 10 ⁷	3.0 x 10 ¹⁰	5.18 x 10 ⁷	3.5 x 10 ¹⁰
RTT (RH @ 75%)	7.40 x 10 ⁶	2.64 x 10 ⁷	1.1 x 10 ⁷	1.04 x 10 ⁷	1.1 x 10 ⁹
Slip Resistance					
RH @ 10%	5.82	5.30	3.82	6.46	4.80
RH @ 50%	5.02	5.62	4.52	4.82	5.10
RH @ 75%	5.36	5.40	5.79	3.77	5.18
Pass = > 5.0	PASS	PASS	FAIL	FAIL	FAIL
Cost per Gallon	\$42	\$42	\$48	\$56	\$28
Applications/Year	6	6	6	6	12
Dry Time per Coat	45 min.	45 min.	240 min.	45 min.	45 min.
Total Material	\$1260	\$1260	\$900	\$1350	\$1680
Total Labor	\$900	\$900	\$1350	\$1150	\$1800
Total Annual Cost	\$2160	\$2160	\$2790	\$2830	\$3480

*Actual test results available upon request.



Choose the High Performance System That Works for You

	Mop, Scrub & Recoat	Weekly Spray Buff	UHS Weekly Burnish
RECOMMENDED ESD FINISH	STATGUARD®-LH	STATGUARD®	STATFREE®
SUGGESTED LOCATION	Manufacturing, Labs, Stock Areas	Manufacturing, Hospitals, Assembly	Walkways, Hospitals, High Traffic, Clean Rooms
LABOR USAGE	Low	High	Moderate
PRODUCT USAGE	High	Moderate	Highest
TOTAL COST	Low	Moderate	Highest
APPEARANCE	Very Good	Excellent	Excellent
ELECTRICAL PROPERTIES	Excellent	Very Good	Very Good
MAJOR BENEFITS	Minimal Care	Shine	High Shine
FINISH SOLIDS	18%	18%	18%
POLYMER HARDNESS	Highest	High	High
FINISH DURABILITY	Highest	High	Moderate
METAL CROSS LINKER	Zinc	Zinc	No Zinc
THALATE FREE	Yes	Yes	Yes
CLEAN ROOM USE	Very Good	Very Good	Excellent
GLOSS	Highest	High	High
DRY TIME PER COAT	45-60 minutes	45-60 minutes	45-60 minutes
 SLIP RESISTANCE	Safe Floor	Safe Floor	Safe Floor
ELECTRICAL PROPERTIES	10 ⁷ to 10 ⁹ Ohms @ 5% to 65% RH	10 ⁷ to 10 ⁹ Ohms @ 30% to 65% RH	10 ⁷ to 10 ⁹ Ohms @ 30% to 65% RH
CHARGE DECAY	5000 volts to Zero in 0.05 seconds	5000 volts to Zero in 0.05 seconds	5000 volts to Zero in 0.05 seconds

GREAT FOR CLEAN ROOM APPLICATIONS

CONTAMINANT COMPATIBILITY

Contaminant	Dried Film	Liquid (Outgassing)
Sodium	Zero	Zero
Fluoride	Zero	Zero
Chloride	Zero	Zero
Bromide	Zero	Zero
Iodide	Zero	Zero

- Dried film testing was completed to simulate particulating.**
- Liquid analysis completed using GLC (gas-liquid chromatography)**

** Analysis conducted at Armstrong Corporate Research Center, Lancaster, PA.

QUICK DRYING TIME

3 times faster than some competitive brands.

It is recommended that Statguard® and Statfree® be allowed to dry at room temperature in excess of 70°F for 45 minutes or until dry. At high relative humidity levels, a longer drying time may be necessary. Wait 6 hours before any light traffic, 12 hours before regular traffic, 48 hours before any wet maintenance, and 72 hours before buffing, heavy equipment, and floor truck traffic.

Three High Performance Systems for Spectacular ESD Floors

MOP, SCRUB, AND RECOAT SYSTEM



STATGUARD®-LH

10556* 5 Gallon Cube Bag-in-Box

For resilient floors, Statguard®-LH is the most durable, easy-care ESD floor finish we make. Just mop and recoat to perk up electricals and luster.

Technical Bulletin TB-2088

* Item #10500 Statguard® Floor Label included with 5 gallon container.

SPRAY BUFF SYSTEM



STATGUARD® FLOOR FINISH

- 10511*** 2.5 Gallon Cube Bag-in-Box
- 10512*** 5 Gallon Cube Bag-in-Box
- 10520** 55 Gallon Drum
- 10525** 275 Gallon Tote

Statguard® provides the ultimate glossy ESD finish that stands up to heavy traffic. It responds nicely to spray buffing and dry burnishing to perk electrical properties and luster with minimal labor.

Technical Bulletin TB-2088

* Item #10500 Statguard® Floor Label included with 2.5 and 5 gallon containers.

UHS BURNISHING SYSTEM

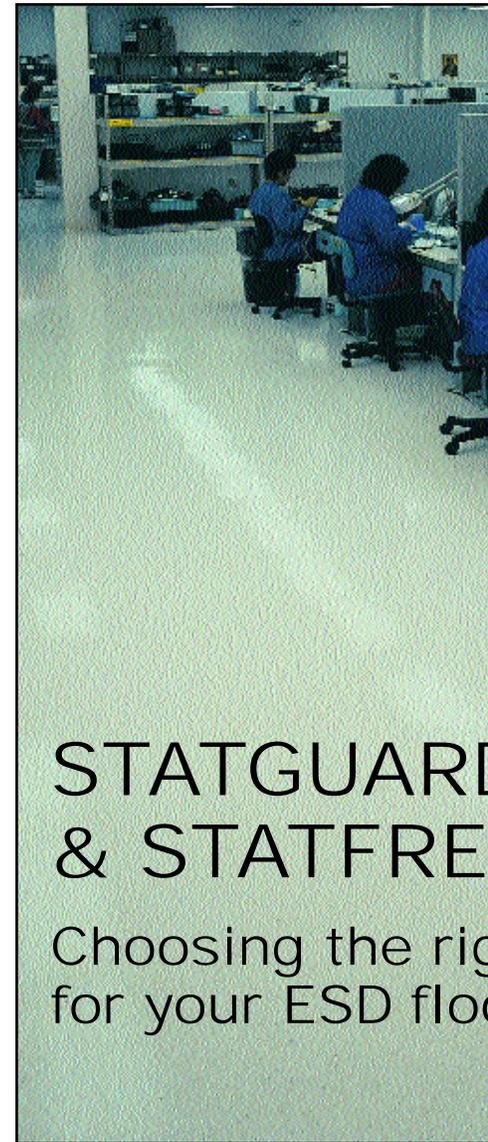


STATFREE® Floor Finish, Spray Buff, Restorer

- 81012** Floor Finish, 2.5 Gallon Cube Bag-in-Box
- 81013** Floor Finish, 5 Gallon Cube Bag-in-Box
- 81030** Floor Finish, 55 Gallon Drum
- 81050** Spray Buff, 1 Quart Bottle
- 81061** Burnishing Restorer, 2.5 Gallon Cube Bag-in-Box

Statfree®'s initial gloss is the highest no-zinc finish on the market, and its response to spray buffing is unmatched. Burnishing Restorer snaps back electricals and finish; together they make the ideal UHS system.

Technical Bulletins TB-2045, TB-2048, and TB-2049



Other High Performance Products for Spectacular Results



D[®]
E[®]
ight solutions
or care system



STATGUARD[®] FLOOR CLEANER

- 10561** Statguard[®] Floor Cleaner, 2.5 Gallon Cube bag-in-Box
- 10566** Statguard[®] Floor Cleaner, 5 Gallon Cube Bag-in-Box

Labor saving dissipative cleaners leave floors clean and free of insulative film with no rinsing.

Technical Bulletins TB-2090 and P-2047



STATGUARD[®] FLOOR STRIPPER

- 10441** Statguard[®] Floor Stripper, 2.5 Gallon Cube Bag-in-Box
- 10442** Statguard[®] Floor Stripper, 5 Gallon Cube Bag-in-Box

Strips resilient floors with low ph formula, reducing rinse time and cutting labor costs by 20% over conventional strippers.

Technical Bulletins TB-2089 and TB-2046



STATGUARD[®] FLOOR LABEL

- 10500** Statguard[®] Floor Label

The 10500 Statguard[®] Label is used to identify a floor as "ESD Protective" and meets ANSI/ESD S20.20



STATGUARD[®] CONDUCTIVE FLOOR PAINT

- 10408** 1 Gallon Pail, Grey
- 10409** 5 Gallon Pail, Grey
- 10410** 1 Gallon Pail, Light Grey

Acrylic Conductive Paint is a great conductive base for concrete floors and other hard surfaces.

Technical Bulletin TB-2080



AISLE MARKING TAPE

- 81800** Tape, 3" x 54'
- 81801** Tape, 3" x 108'
- 81802** Tape, 3" x 216'

Aisle Marking Tape is ideal for area designation in ESD sensitive areas. It is constructed of scuff-resistant vinyl plastic with a backing of quick-stick adhesive.

Drawing 81800

Need More Details
About Our
Floor Care Products?

See our web site: www.desco.com

Floor Care Calculator:

<http://www.desco.com/service/calc.asp>

E-mail us: support@desco.com

24-hour Fax on Demand for Technical
Bulletins and MSDS: (909) 627-7126

Customer Service:

(909) 627-8178 (Chino, CA), or (781)
821-8370 (Canton, MA)

High Performance Statguard® and Statfree® ESD Floors in Three Easy Steps

Statguard® and Statfree® Floor Finish are used to dissipate static charges as well as prevent tribocharging (static charge generation) while providing a clear, high gloss finish that resists wear. They are UL listed for slip resistance.

Statguard® and Statfree® Floor Finish have a very easy application process:



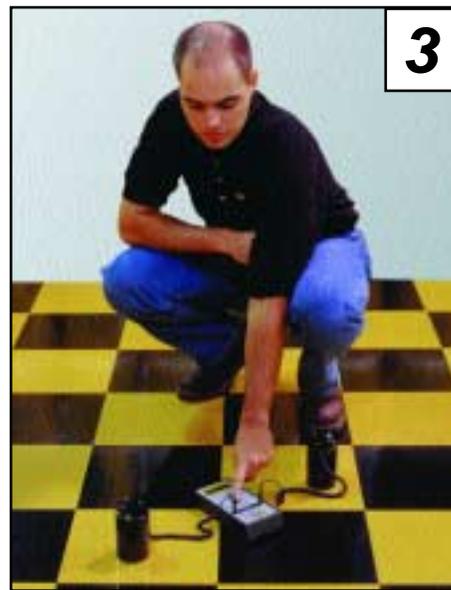
The Tools

High-tech ESD Floor Finish uses standard janitorial tools and procedures. All you need is a clean dedicated rayon or cotton blend mop, a dedicated bucket, and pail of Statguard® or Statfree® Floor Finish.



The Application

Start with a clean floor. One gallon covers 2,000 to 2,500 square feet. We recommend applying two to three coats. For known high traffic applications three coats are recommended for extended life. Allow as little as 45 minutes between each coat for proper drying.



The Measurable Results

It is recommended to test the surface resistance periodically to ensure that insulative contaminants such as dirt and grime are not building up on the surface. See below for Desco testers that meet the requirements of ESD-S7.1.

Confirming Your Results



SURFACE RESISTANCE/ TEST KIT

19780 Test Kit, NIST Calibrated, 120 Volt

Everything needed for testing, audits, and meeting EOS/ESD S4.1 standards.

Technical Bulletin TB-3014



MINIMEG TESTER

19635 Tester, NIST Calibrated

Perfect for fast spot checking of dissipative and conductive surfaces.

Technical Bulletin TB-2083

High Performance Floor Care Tips That Save You Money

STRIPPING

1. Follow recommended dilution; stronger isn't always better. The stripper solution must contain some water to be effective.
2. Allow stripper solution to penetrate the finish for several minutes before scrubbing. For heavy build-up, you may have to apply more stripper to the floor as the stripper solution becomes saturated with old loosened finish.
3. To check if the floor is ready for scrubbing, scrape the finish film with the center section of a floor pad. (Be sure you're wearing rubber gloves.) If you easily scrape the bare floor, it is ready to scrub. If the pad scrapes only a slippery layer of finish, then you need more time or more stripper solution.

FINISHING

4. Always use laundered rayon-blend mopheads for finishing. Soiled or new cotton mops can turn the finish brown. Before use, soak mops in water and wring out tightly, so they absorb less finish and are easier to clean.
5. Coat traffic lanes more than other areas. On the first application, stay at least 12 to 14 inches away from baseboards and corners. Gradually work closer to the edges with each subsequent coat. To prevent edge buildup, apply one coat to non-traffic edges for every three coats applied in traffic lanes.
6. Apply finish in uniform, medium to full coats. Thin coats may dry faster, but often lack strength and contribute to powdering.
7. To test finish adhesion, apply one coat to a small area and let dry 40-50 minutes. Apply masking or cellophane tape to the finish and pull up quickly. If the finish comes off with the tape, you have poor adhesion. This is especially important to do when stripping the factory finish from new tile.

CLEANING/ MAINTENANCE

8. Frequent dust mopping and immediate clean-up of spills are critical to great looking floors. Use only clean dust mops. For a treated dust mop use only Statguard® or Statfree® finishes diluted 1:3 with water. Other treatments may insulate floor.
9. Follow dilution instructions carefully to conserve cleaner and protect finish. Cleaners should be strong enough to remove soil without damaging your finish. The cleaner solution is too strong if your finish looks hazy and dull after cleaning.
10. Always use clean scrubbing pads or brushes on auto scrubbers and rotary machines, and clean cotton mops for hand mopping.
11. Deep scrub floors before recoating to prevent floor finish build-up and delay stripping. Mix a cleaning solution suitable for heavy soil; apply with a mop or auto scrubber. Scrub the floor using an automatic or rotary machine equipped with black stripping pads, then pick up solution and rinse. Surface should be clean and free of scratches, heel marks, and any cleaner residue. Recoat with finish.

BUFFING/ BURNISHING

12. Always clean the floor before any buffing operation. Even light accumulations of soil quickly become embedded into the floor finish when burnished.
13. With softer finishes (especially with UHS), fresh coats may show swirl marks and scratches when buffed. Use a softer, less aggressive buffing pad for several days until the finish has fully cured.
14. A dedicated pad is recommended to eliminate any contamination of insulative finishes. Change and clean buffing pads frequently. As they pick up floor finish, dirt and other materials, they become less effective and create excess drag on the buffing machine.

