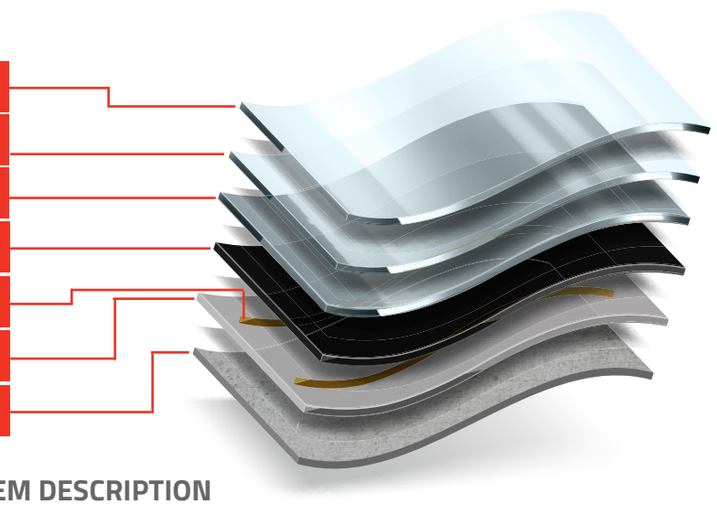
42 Mils ESD Conductive System

Technical System Sheet (TSS)

8603 StaticShield Topcoat	300 Ft²/Gal
8603 StaticShield Seal Coat	250 Ft²/Gal
8602 StaticShield Build Coat	100 Ft²/Gal
8601 Conductive Primer	160 Ft²/Gal
Conductive Copper Strip	As specified
320 CrownShield Insulation Primer	200 Ft²/Gal
Prepared Concrete	CSP 2-4



SYSTEM DESCRIPTION

CrownCoat flooring system is placed at a nominal 28 mils and meets the Unified Facilities Guide Specification 09 67 23.15 requirements for a three-step aircraft hangar flooring system. It is comprised of a primer, body coat and finish coat, with or without optional sprinkling of skid resistant aluminum oxide aggregate. It can be applied directly over Crown Polymers moisture mitigation primer 8303 CrownShield when it is required. It is in compliance with SCAQMD air quality standards for Industrial Use Only.

OPTIONAL COMPONENTS

- **Moisture Mitigation Primer :**
8303 CrownShield® Clear 100 ft²/gal @ 16 mils

- **Waterproofing & Crack Suppression Membrane :**
8502 CrownFlex Clear 40 ft²/gal @ 40 mils

- **Cove Binder :**
8503 CrownFlex Thixotropic Epoxy 35 lf/gal @ 6”

*For complete details refer to each optional components Technical Data Sheet (TDS).

TYPICAL USES

- Aerospace & Avionics
- Automotive Maintenance & Repair
- Bio Technology & Research
- Computer & Data Housing
- EV Battery Production
- Chemical Processing & Storage
- Flammable & Explosive Areas
- Medical Equipment
- Semi-Conductor Production

MECHANICAL PROPERTIES

For complete details refer to each components Technical Data Sheet (TDS)

BENEFITS

- Complies with USDA, FDA, FSMA. See Crown Polymers Technical Bulletin: 3 Food and Beverage Compliance.
- Slip Resistance (ADA) See Crown Polymers Technical Bulletin: 4 Coefficient of Friction.
- LEED requirements. See Crown Polymers Technical Bulletin: 5 LEED information
- Cures to an inert finish. See Crown Polymers Technical Bulletin: 2 VOC Compliance

CHEMICAL RESISTANCE

Refer to CrownTech Chemical Resistance Guideline Technical Bulletin No. 9

COLORS

Light Grey | Med Grey | Dark Grey

DISCLAIMER

All technical bulletins, installation guidelines, guidelines, recommendations, statements, specifications, and technical data contained herein are based on information and tests. The accuracy and completeness of such tests are not guaranteed and are not to be construed as a warranty, expressed or implied. It is the responsibility of the user to document information and tests to determine the intent of the product for ones’ own use. The application, job conditions and user assume all risks and liability resulting from use of the product, We do not suggest or guarantee any hazards listed herein are the only ones, which may exist, Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use the product. Recommendations or statements, whether in written or verbal, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Crown Polymers makes no claim that these tests or any other tests accurately represnt all environments. Not responsible for typograhical errors.

LIMITED WARRANTY

Crown Polymers warrants its products to be free of manufacturing defects and meets all Crown Polymers current published physical properties. Crown Polymers’ sole responsibility shall be to replace the protion of any product proved to be defective. There are no other warranties by Crown Polymers of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Crown Polymers shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty expressed or implied. In addition, no warranty or guarantee pertaining to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by applicator will be issued. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of substrate or structural defects are also excluded from limited warranty.

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42 Mils ESD Conductive System

Application Guide

APPLICATION EQUIPMENT

Personal Protective Equipment
Jiffy Mixing Paddle
Slow Speed Drill
18"x3/8" Nap Roller Cover
8-12 Mil Notched Squeegee
4" Chip Brush
Spike Shoes

SURFACE DIAGNOSTICS

Concrete must be structurally sound and free of all contaminants and bond breakers. Test concrete compressive strength using a Schmidt or Rebound Hammer to ensure substrate has compressive strength of 3500 psi or higher.
Perform a PH test using concrete PH test strips or meter to ensure substrate PH is between 9-12.
Perform Moisture Test using either Calcium Chloride per ASTM F1869 or In-Situ Relative Humidity Probe per ASTM F2170 to ensure substrate has Moisture Vapor Emission Rate of 3 lbs or less and Relative Humidity of 80% or less.
See CrownTech Bulletin 6: Moisture Mitigation Negative Side Moisture Barrier

If Moisture Vapor Emission Rate is above 3 lbs. but below 25 lbs. and relative humidity is above 80% but below 99% then apply 8303 Moisture Barrier Primer first at 16 mils with a coverage rate of 100 Ft²/ Gal.

SURFACE PREPARATION

Use Mohs scratch test to determine concrete hardness for proper diamond bond selection.
Concrete should be mechanically profiled and prepared to produce a Concrete Surface Profile (CSP) level between #2 & #4 per ICRI Guideline no. 310.2R
See CrownTech Bulletin 1: Concrete Surface Preparation

SURFACE REPAIR

All depressions, divots and cracks should be profiled and free of dust and contaminants. Repair cracks to reduce the ability to see the defect through the coating.

TEMPERATURE EVALUATION

Ambient and substrate temps should be between 50-90°F and a minimum of 5°F above Dew Point.
Product temps should be between 70-80°F.
Relative Humidity should not exceed 85%.
See CrownTech Bulletin 7: Temperature & Relative Humidity

REVIEW SAFETY DATA SHEETS FOR PRECAUTIONS

ENVIRONMENT SHOULD HAVE PROPER AND ADEQUATE VENTILATION DURING APPLICATION AND CURING PROCESS

Do not mix more material than can be applied in 20 minutes

320 MIXING PROCEDURE

1. Pre-Mix A-Component in its respective container using Jiffy mixer and drill at slow speeds for 30 seconds.
2. Pre-Mix B-Component in its respective container using clean Jiffy mixer and drill at slow speeds for 30 seconds or until thoroughly homogeneous.
3. Transfer B-component and A-component at a mix rate of 2A:1B by volume into a clean 5-gal bucket and mix for 2-3 minutes being sure to scrape sides of the bucket with a stir stick ensuring both components are thoroughly blended

320 COVERAGE RATE

200 Ft² / Gal @ 8 mils wet film

320 WORKING TIME

20 Minutes @ 75°F

Warmer ambient, product and surface temperatures as well as direct airflow will shorten potlife and working time.

320 APPLICATION PROCEDURE

1. Cut-in stem walls using a 4" chip brush. Do not work edges more than 10 minutes ahead of main body of the floor.

Epoxy sets quicker in mass, material should not be left in bucket for extended periods of time

2. Pour a band of mixed material across the surface roughly 4-6" wide. Use 8-12 mil notched squeegee to gauge material across surface.
   • Maintain wet edge
   • Do not allow more than 10 mins ahead of next mixed batch.
   • Always pour next mixed batch onto wet edge.
3. Back roll the surface with 18" x 3/8" nap roller by walking into the wet material wearing spike shoes and roll the surface wall to wall with overlap perpendicular to your first pass
   • Do not overwork material
4. ✓ Allow coating to dry 6-8 hrs @ 75°F. Once Primer is dry apply grounding strips per specification.

8601 MIXING

1. Pre-mix A-Component and mix using Jiffy mixer and drill at slow speeds for 30 seconds until pigment is uniform.
2. Add B-Component to the A-Component and mix for 2 minutes.
3. Add 1 Quart clean water and mix again for 2 minutes being sure to scrape sides of the bucket with a stir stick ensuring both components are thoroughly blended

COVERAGE RATE

Primer: 160 Ft² / Gal @ 10 mils

WORKING TIME

20-30 Minutes @ 75°F

APPLICATION STEPS

1. Cut-in stem walls using a 4" chip brush. Do not work edges more than 10 minutes ahead of main body of the floor.
2. Pour a band of mixed material across the surface roughly 4-6" wide. Use 8-12 mil notched squeegee to gauge material across surface depending on desired application
3. Back roll the surface with 18" x 3/8" nap roller by walking into the wet material wearing spike shoes and roll the surface wall to wall with overlap perpendicular to your first pass
4. ✓ Allow coating to dry.
   Apply subsequent Coats: 12-24 Hours

8602 MIXING

1. Premix A component for 30 seconds and add pigment and mix for 1 minute or until mixture is homogenous
2. Add B component and mix at slow speed for 2 minutes or until thoroughly homogeneous being sure to scrape sides of bucket to ensure all material is thoroughly blended.

COVERAGE RATE

Build Coat: 100 Ft² / Gal @ 16 mils

WORKING TIME

20-30 Minutes @ 75°F

APPLICATION STEPS

1. Cut-in stem walls using a 4" chip brush. Do not work edges more than 10 minutes ahead of main body of the floor.
2. Pour a band of mixed material across the surface roughly 4-6" wide. Use 15-20 mil notched squeegee to gauge material across surface
3. Back roll the surface with 18" x 3/8" nap roller by walking into the wet material wearing spike shoes and roll the surface wall to wall with overlap perpendicular to your first pass
4. ✓ Allow coating to dry 6-8 hours. Proceed to next step within 24 hours or abrading surface with 100 grit screen will be required.

MIXING

1. Premix A component for 30 seconds to ensure all solids are suspended and add pigment pack and mix for 1 minute until thoroughly blended
2. Add B component and mix at slow speed for 2 minutes or until thoroughly homogeneous.

COVERAGE RATE

TopCoat: 250 Ft² / Gal @ 6.4 mils

WORKING TIME

20-30 Minutes @ 75°F

Warmer ambient, product and surface temperatures will shorten potlife and working time.

APPLICATION STEPS

1. Cut-in stem walls using a 4" chip brush. Do not work edges more than 10 minutes ahead of main body of the floor.
2. Pour a band of mixed material across the surface roughly 4-6" wide. Use 5-7 mil notched squeegee to gauge material across surface
3. Back roll the surface with 18" x 3/8" nap roller by walking into the wet material wearing spike shoes and roll the surface wall to wall with overlap perpendicular to your first pass
4. ✓ Allow coating to dry.
   Apply 2nd coat in same manner within 24 Hours
   Light Foot Traffic: 24 Hours
   Heavy Foot Traffic: 48 Hours
   Equipment: 72 Hours

SLIP RESISTANCE

Skid-Resistance – Field (in situ) Wet Dynamic Coefficient of Friction (DCOF), ANSI A326.3. See Crown Polymers Technical Bulletin: 4 Coefficient of Friction.

CLEAN-UP

Clean-up mixing station, tools, and equipment as required. Use acetone, a VOC exempt solvent, for cleaning up. Observe all legal, and health, and safety precautions when handling or storing solvents and materials, particularly in confined spaces. Make sure the working areas are well ventilated at all times during placement and curing time.

DISPOSAL

Dispose of empty packaging and other waste in accordance with federal, state, provinces and local regulations.

MAINTENANCE

Inspect the installed floor by spot cleaning and spot repairing the damaged or cracked areas. To prolong life of the flooring system, a daily maintenance program is highly recommended to ensure the floor is safe for its intended purposes. See Crown Polymers Technical Bulletin: 8 Care and Maintenance.

TECHNICAL SUPPORT

For questions, contact a Crown Polymers Representative. Additional Support Documents are available from Crown Polymers, including brochures, application guidelines, videos and more. Visit Crownpolymers.com or contact Crown for additional resources