UniFloor 9: Conductive Epoxy Flooring

UNION COMPOUND

Selection & Specification Data

TYPE	A high solids self-priming epoxy cured with an amine curing agent and formulated with special pigmentation to produce an abrasion resistant film with a degree of electrical conductivity.
INTENDED USE	As an internal lining or protective coating on metal, concrete, or other conductive surfaces to effectively bleed off accumulated electrostatic charge. (As standard concrete filler-sealers having high dielectric properties cannot be used, UniFloor 9 should not normally be considered as a total immersion lining for concrete vessels). FOR INDUSTRIAL USE ONLY!
CHEMICAL RESISTANCE	Excellent resistance to a wide range of chemicals and water solutions.
APPLICATION	Formulated for standard production spray equipment.
COLORS	Medium Gray
FILM THICKNESS PER COAT	A 6 to 8 mil coat is produced in one multi-pass spray coat.
COVERAGE	1379 mil ft2/gal. ± 2% theoretical. For estimating purposes, 157 ft2/gal. will produce a 6 to 8 mil film (20% loss included). Two coats will produce a 12 to 15 mil film for immersion service.
DRYING TIME	Surface will normally be tack free in 4 to 6 hours at 70°F.
CURING TIME	5 days at 90°F; 7 days at 70°F; 10 days at 50°F. Consult Union Compound Technical Service Department for force curing information.

VOC CONTENT

	Coating as Supplied (Determined Theoretically)		Thinned 10% by Volume with Thinner 11 (Determined Theoretically)	
Color	Lbs./Gal.	g/L	Lbs./Gal.	g/L
Medium Gray	0.94 ± 4%	112 ± 4%	1.47 ± 4%	175.5 ± 4%

PHYSICAL SPECIFICATIONS

SOLIDS:	93% ± 2% by weight 86% ± 2% by volu
POT LIFE	Approximately 4 hours at 70°F
SHELF LIFE	24 months minimum at 70°F. Material in stock should be turned upside down every 3 to 6 months.
SHIPPING WEIGHT	Approx. 14.2 lbs./gal.
Gloss	32 at 60°
*Surface Hardness	Konig Pendulum Hardness of 155 seconds (Glass Standard = 250 seconds); (ASTM Method D4366-84)
*Abrasive Resistance	16.1 milligrams average loss per 1000 cycles. Taber CS-17 Wheel, 1000 gram weight
Electrical Resistance	Point-To-Ground: <25,000 ohms

Note: Above tests were conducted on film cured at 150°F.

SURFACE PREPARATION

Steel:
Surfaces prepared by blasting to degree dictated by service conditions. For immersion in severe service, an SSPC-SP5 or NACE No. 1 white metal with an anchor pattern corresponding to approximately 20 to 25% of the total film thickness of the coating film being applied.
Concrete:
Fully cured concrete must be blasted or acid etched to provide a hard, firm, clean and neutral surface for coating.
Note:
Although concrete may be somewhat conductive, it is recommended that a prime coat of UniFloor 2 be applied prior to the application of UniFloor 9.

EQUIPMENT

Spray Application:
All spray equipment should be thoroughly cleaned and the hose, in particular, should be free of old paint film and other contaminants.
Use standard production-type spray guns:

GUN	FLUID	AIR
DeVilbiss JGA-510	E	797
Binks #18	66-SS	63-PB
Graco P800	04	02

A heavy-duty trigger spring is recommended. Atomizing air spray is recommended because of the high wear rate of tips and pump parts on airless spray equipment.

MIXING

The curing agent and coating are supplied in separate containers at a 3:1 ratio. For splitting purposes, use 1 part curing agent to 3 parts coating by volume. Thoroughly mix coating, then add curing agent slowly and mix completely with coating.
Note: Continuous mixing during use is required.
Note: Nonconductive primers (such as UniFloor 1 Primer) should not be used with UniFloor 9. While it may be possible to use an electrically conductive primer (such as UniFloor 3 inorganic zinc rich epoxy), it is recommended that the Union Compound Technical Service Department be consulted first.

APPLICATION PROCEDURE

1. Air supply shall be uncontaminated. Adjust air pressure to approximately 50 lbs. at the gun and provide 5 to 10 lbs. of pot pressure. Adjust spray gun by first opening liquid valve and then adjusting air valve to give an 8” to 12” wide spray pattern with best possible atomization. Continuous agitation during use is required.
2. Apply a “mist” bonding pass.
3. Allow to dry approximately one minute, but not long enough to allow film to completely dry.
4. Apply crisscross multi-passes, moving gun at fairly rapid rate, maintaining a wet appearing film. Fast multi-passes may be applied until you have film thickness of approximately 6 to 7 mils (approximately 7 to 8 wet mils).

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5. Overcoat time will vary both with temperature and ventilation and will normally require 10 to 12 hours at 70°F for enclosed spaces. Less time is required for exteriors. Remove all overspray by dry brushing or scraping if required.
6. By repeating Step No. 4, a homogeneous film of 12 to 15 mils is obtained.
7. Equipment must be thoroughly cleaned immediately after use with thinner 11 to prevent the setting of the coating.
Note: All welds, pits and rough metal areas should be coated by brush prior to spray application.

SAFETY

SAFETY AND MISCELLANEOUS EQUIPMENT

For tank lining work or enclosed spaces, it is recommended that the operator provide himself with clean coveralls and rubber soled shoes and observe good personal hygiene. Certain personnel may be sensitive to various types of resins which may cause dermatitis.

THE SOLVENT IN THIS COATING IS FLAMMABLE AND CARE AS DEMANDED BY GOOD PRACTICE, OSHA, STATE AND LOCAL SAFETY CODES, ETC. MUST BE FOLLOWED CLOSELY. Keep away from heat, sparks and open flame and use necessary safety equipment, such as, air mask, explosion-proof electrical equipment, non-sparking tools and ladders, etc. Avoid contact with skin and breathing of vapor or spray mist. When working in tanks, rooms and other enclosed spaces, adequate ventilation must be provided. Keep out of the reach of children.

CAUTION - Read and follow all caution statements on this product data sheet, material safety data sheet and container label for this product.
This data sheet provides standard information on the coating and application procedure. Since varying con-ditions may not be covered, consult with your local sales representative or Union Compound Technical Service Department for further information.

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact union compound Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to union compound quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY union compound, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.