ConduCoat Product Data Sheet (PDS)

Selection & Specification Data

Type	Conductive Epoxy Coating
Description	A 100% solids electrically conductive coating designed to protect buried metal structures from corrosion while allowing the structures to act as grounding electrodes.
Colour	Black
Finish	Granular
Dry Film Thickness (DFT)	40 mils in two coats
Solids Content	100%

Substrates & Surface Preparation

All	Prior to any other surface preparation the surface must be cleaned in accordance with SSPC SP1, “Solvent Cleaning”. The substrate must be clean, dry and free of oil, grease and other contaminants.
Carbon Steel	Below Ground Service: Abrasive blast clean to NACE No.1, SSPC SP5, “White Metal Blast Cleaning” to produce a minimum 2 mil surface profile. Atmospheric Service: Abrasive blast clean to NACE No. 2, SSPC SP10, “Near White Metal Blast Cleaning” to produce a minimum 2 mil surface profile.
Galvanized Steel	Below Ground Service: Abrasive blast clean to SSPC SP16, “Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels and Non-Ferrous Metals” to produce a minimum 2 mil surface profile. Atmospheric Service: Abrasive blast clean to SSPC SP16, “Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels and Non-Ferrous Metals” to produce a minimum 2 mil surface profile.

Ductile Iron	Below Ground Service: Abrasive blast clean to NACE No.1, SSPC SP5, “White Metal Blast Cleaning” to produce a minimum 2 mil surface profile. Atmospheric Service: Abrasive blast clean to NACE No. 2, SSPC SP10, “Near White Metal Blast Cleaning” to produce a minimum 2 mil surface profile.
Weathering Steel	Below Ground Service: Abrasive blast clean to NACE No.1, SSPC SP5, “White Metal Blast Cleaning” to produce a minimum 2 mil surface profile. Atmospheric Service: Abrasive blast clean to NACE No.4, SSPC SP7, “Brush-Off Blast Cleaning” to produce a minimum 2 mil surface profile.

Mixing & Thinning

Number of Components	Two: Part A (resin) and Part B (hardener)
Ratio	2 parts resin to 1 part hardener by volume
Mixing	Mix resin and hardener separately to ensure that any settled filler has been redispersed. Mix 2 parts resin and 1 part hardener thoroughly until the material is uniform.
Thinning	If required - up to 5% SW-54 (TH17-10/T10)
Pot Life	45 minutes @ 25 ºC (77 ºF)
Cleanup	Flush and clean all equipment with Methyl Ethyl Ketone (MEK) immediately after use.

Application Guidance

Application	The following spray equipment has been found suitable and is available from the manufacturer WIWA. ***Refer to SAE Application Guide for additional details.***
Thick-Film/ Mortar Pump	WIWA 600.12 Minimum Required Air Compressor Rating: 100 cfm (3000 L/min) Air Line to Pump: Minimum ¾” Fluid Line Length: 50 ft (1” diameter) Tip Size: 5/16” Minimum Pressure to Pump: 35 psi (adjust as required)
Material Temperature	Mixed product should be sprayed within 15 minutes after mixing. Minimum 15°C (60°F); Maximum 30°C (85°F); Optimum 24ºC (75 ºF)

Surface Temperature	Surface temperature Minimum: 10°C (50°F) Maximum: 40°C (104°F) and 3°C (5°F) above the dewpoint

Cure Schedule & Recoat Window

Set to Touch at 24 ºC (75 ºF)	2 – 3 hours
Recoat window at 24 ºC (75 ºF)	Minimum: 3 hours; Maximum: 24 hours
Full cure at 24 ºC (75 ºF)	7 Days

Safety

Safety	Mixing and application of this product present a number of hazards. Read and follow the hazard information, precautions, and first aid directions on the individual product labels and safety data sheets before using.
Ventilation	Provide thorough air circulation during and after application until the material has cured when used in enclosed areas.

Packaging, Estimating & Handling

PACKAGING:	Large Kit: 4.5 US Gallons Small Kit: 1.5 Quarts	Product Number: CCT – 4.5 Product Number: CCT – 1.5
Theoretical Coverage	40 square feet per gallon at 40 mils Allow for loss in mixing and application.	
Storage & Shelf-Life	Maintain products in original packaging and sealed until ready for use. Estimated shelf life is 12 months when stored in a dry area at 21 ºC (70 ºF). Actual shelf life may vary with storage conditions.	
Storage Temperature	Minimum: 10°C (50°F); Maximum: 30°C (86°F); Optimum: 24°C (75°F)	
Cautionary Note	If there are any questions with respect to the quality of the components, check reactivity prior to use. For assistance consult with SAE.	

Typical Physical Properties

PROPERTY	VALUE
Flash point	93°C (200°F)
Impact strength (Coated Side)	140 in-lbs.
VOC	0 g/L
Specific gravity	Resin: 1.3 g/mL Hardener: 1.28 g/mL
Hardness, ASTM D2240	85 Shore D
Abrasion Resistance, ASTM D4060	125 mg loss CS17 1000g; 1000 cycles

Service Temperature

SERVICE	TEMPERATURE REQUIREMENTS
Atmospheric	Minimum: - 40°C (- 40°F) Maximum: 60C (140°F)
Below Ground	Minimum: - 40°C (- 40°F) Maximum: 60°C (140°F)

Temperature limitations will vary with chemical exposure. Consult SAE Technical Service for guidance.

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