



POLECLAD 100

TECHNICAL DATA

HIGH PERFORMANCE COATING FOR STEEL POLES

THE PRODUCT AND ITS USES

PoleClad 100™ is an extremely tough corrosion resistant coating especially developed for the protection of embedded steel poles of all types, e.g. electrical transmission and distribution poles, cellular towers and windmills. It is an instant setting, direct-to-steel, self-priming, one coat system. The underlying chemistry is a highly cross-linked structural polyurethane resin.

Starting with Madison's CorroCote II technology that has been Underwriters' Laboratories approved since 1975 for protecting underground steel structures, PoleClad 100™ brings to the pole industry 5 breakthrough enhancements which make possible, for the first time, a design life of 100 years. These enhancements briefly are: hybrid ceramic/polyurethane technology incorporating ceramic microspheres for double the impact resistance and triple the abrasion resistance; Madison's exclusive patent pending edge retention technology developed in 2002 in conjunction with the U.S. Navy (ensures more even film build in hard-to-coat areas); a UV barrier additive; the inclusion of a unique hydrophobic aromatic polymer (HAP) for enhanced impermeability; and a proprietary corrosion inhibitor.

Other product features include superior adhesion, worker and environmental friendliness (rated "non-hazardous" by the U.S. Department of Transportation), resiliency, impermeability, excellent resistance to cathodic disbondment and extreme toughness.

This product is intended for use near or below the ground line. Other Madison products are available for the atmospherically exposed portion of poles and similar structures. For those applications, consult with your Madison representative for details concerning Tufsheen II™ and AcrylaThane 5200™.

TECHNICAL INFORMATION

PROPERTY	TEST DESCRIPTION	RESULTS
Application Temperatures	N/A	-20°C(0°F) to 65°C(150°F)
Initial Setting Time	@ 20°C/70°F	5 to 8 minutes
Curing Time Before Handling	@ 20°C/70°F	10-15 minutes
Ultimate Cure	@ 20°C/70°F	4-7 days
Recoat Time	@ 20°C/70°F	up to 1 hour
Solids Content	ASTM D-1259	99% +/- 1%
Volatile Organic Compounds (VOCs)	ASTM D-2369	Less than 8.1 grams/litre (0.07lbs/US gal)
Theoretical Coverage	N/A	39m ² /litre/25microns (1604 ft ² /US gal/mil)
Adhesion to Steel	ASTM D-4541 (SSPC -SP5)	Greater than 2000 p.s.i.
Hardness	ASTM D-2240 Shore D	70 +/- 5
Flexibility	ASTM D-522 (20 mils)	180° over 2" mandrel
Chemical Resistance	ASTM D-543	Suitable for both continuous and intermittent immersion
Impact Resistance	ASTM D-2794 (25 mils)	80 in.lbs.
Abrasion Resistance	ASTM D-4060 (Taber CS-17)	25 mg loss
Resistance to Cathodic Disbondment	ASTM G-8 (STP, 28 days 20 mils)	Excellent (10 mm average radius)
Ultraviolet Resistance	ASTM G-154	Will chalk and fade but resistant to UV breakdown
Service Temperature	ASTM D-870, ASTM D-2485	-40°C(-40°F) to 60°C(140°F) Wet -40°C(-40°F) to 90°C(195°F) Dry
Edge Retention Capability	U.S. Navy MIL-PRF-23236C (SH)	70%
Perm Rating	ASTM E-96 (15 mils)	.002 perm inches
Color Availability		Fairway Green Metallic

NOTE: All statements, technical information and recommendations contained herein are typical of results obtained under laboratory conditions and are not intended to be used as contract specifications. For specification guidelines please contact Madison Chemical.

APPLICATION INSTRUCTIONS

Because of the specialized nature of this product, consult with your Madison representative for application instructions. Surface preparation requirements are aligned with established industry standards. Application of coating is achieved with heated, plural component, 1:1 airless spray equipment such as Graco Hydrocat or Glasscraft MH. To achieve 100 year expectancy life, certain design requirements to Underwriters Laboratories standards will be applied.

HEALTH AND SAFETY

PoleClad 100™ is intended for industrial use only. It contains no monomeric isocyanates but may nevertheless cause respiratory distress in some people. Provide ample ventilation. Wear a fresh air respirator when using in confined areas or when spraying. Wear rubber gloves, safety goggles and protective clothing. If swallowed, DO NOT induce vomiting as this will cause additional throat irritation; contact physician. If splashed on skin, remove immediately with rubbing alcohol and then wash with soap and water. If splashed in eyes, wash liberally with clean water and contact physician; temporary irritation of eyes may last several days. Contains trace amounts of ingredients which may cause skin cancer following prolonged direct skin contact. Therefore, commonly used skin protection is recommended. See MSDS for more information. The finished product is completely inert.

WARRANTY

A 25 year warranty program is available from Madison (an insurance premium applies). Otherwise the following warranty applies:

Madison will replace any product which, in service for which it is suitable, fails to meet specifications within two years of sale and which is proven to be defective when applied according to instructions by a Madison Approved Applicator or Certified OEM Applicator. Madison accepts no responsibility or liability for any other loss, claim, damage, injury or expense, direct or consequential, in contract or negligence. This product replacement warranty is in lieu of any other right, warranty, guarantee or condition, statutory or otherwise, expressed or implied, whether as to fitness for a particular purpose or as to merchantable quality or otherwise.

The information contained herein is believed to be accurate as of the date of publication. Madison reserves the right to change product specifications without notice.

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