BIO-GARD™ 258

100% PROTECTION
WET OR DRY

Thin Film Technology, Inc.

PRODUCT DATA SHEET

BIO-GARD™ 258 is based on a unique blend of liquid epoxy polymer and aliphatic polyamine curing agents, which is able to displace water from wet surfaces in order to make a permanent bond. The formulation is solvent-free to ensure safety and maximum technical performance. Kevlar™* fibers are incorporated for reinforcement and viscosity management to achieve high application rates.

BIO-GARD™ 258 provides permanent protection under the most adverse conditions including exposure to most industrial chemicals such as acids, alkalis, and hydrocarbons. The formula is uniquely field-friendly and uses advanced low toxicity ingredients. All colors including White are available and can be shipped "Non-Regulated" by USDOT, IATA and IMO.

**Kevlar is a trademark of the E.I. DuPont de Nemours Co.*

RECOMMENDED USES

ANTICORROSIVE COATING: Marine and Industrial "heavy duty" applications.

WASTEWATER: Reinforcing, smoothing and protecting worn concrete damaged by exposure to chemical or municipal waste streams.

TECHNICAL INFORMATION

VEHICLE TYPE ……	Epoxy/Aliphatic amines
PIGMENTATION ……	Color/Inert/fibrous reinforcement
COLORS ……	Standard White, Black, Gray – other available
FINISH ……	Slight texture
THINNER ……...	Not normally required
CLEANER ……...	MEK or lacquer thinner
MIXING RATIO ……	5.0/3.0 v/v
INDUCTION TIME . ……	Not required
POT LIFE ……	Approx. 40’ / 77˚F
FLASH POINT ……	Over 200˚F
SOLIDS BY VOLUME ……	100%
SPREADING RATE/GAL……	1604 mil/sq.ft./gal, 80 sq.ft./gal @ 20 mils
DRY TIME, (Dust free) …….	4 hours at 77˚F
DRY TIME, (Service)……	14 hrs. light, 72 hrs. heavy
APPLICATION METHOD……..	Brush, roller heated plural airless spray
STORAGE CONDITIONS……	Normal, Freezing OK
VOC. …….	Essentially zero

APPLICATION NOTES

SURFACE PREPARATION: This may be accomplished in several different ways:

New Concrete surfaces are best prepared by abrasive blasting to roughen and remove the weak surface laitance. When prepared properly the surface should have the firm granular appearance of "medium" sandpaper.

Aged Concrete surfaces may be prepared by either high pressure water jetting at sufficient pressure to remove all loose contamination and yielding a firm, "medium" sandpaper finish. Worn concrete in wastewater service may be prepared using only about 3,500psi however aged concrete, which has never been in aggressive service, may require jetting with over 8,000psi to achieve the same result. Air abrasive blasting is also a satisfactory method of preparation. If the concrete is extremely worn it may be faired smooth before application of the BIO-GARD™ 258 using BIO-FILL™ 455 or BIO-FILL™ 456 depending on anticipated exposure -call TFT for recommendations.

Steel is best prepared by air abrasive blasting to a "near-white", (SA2.5, SSPC-SP-IO) BIO-GARD™ 258 is, however, extremely tolerant of compromised surfaces and will provide excellent protection over tight rust or existing coating residues in sound condition. The solvent-free formulation avoids softening of underlying coatings; BIO-GARD™ 258 may even be applied over Styrofoam™ without softening it.

MIXING PROCEDURE: BIO-GARD™ 258 is supplied in 2-gallon kits of base and curing agent. The base component is packed in a part filled two gallon plastic pail and the curing agent is packed in a part filled one gallon steel can. Use a 1/2" "Jiffy" type mixer to initially stir the base then pour in the curing agent and continue mixing for about one extra minute taking care to incorporate all material from the base and sides of the pail. If unmixed epoxy base or curing agent is applied to the surface **it will never cure.**

APPLICATION: Pour the mixed product into a pan and apply with a roller using typically a 3/8" nap for both steel and concrete. Especially rough surfaces will apply more easily using a 1/2" nap.

When making application by brush, use an appropriate sized brush with preferably natural bristles. In some applications it will be useful to either cut an inch or two of bristles from the end or to wrap the base of the bristles close to the shank with duct tape in order to stiffen the brush.

If airless plural spraying the following conditions are recommended:

Ratio:	Base/Cure :: 5/3
Fluid temperature:	130˚F
Fluid pressure:	2,250psi
Tip:	30thou" – angle to suit application
Cleaning solvent:	MEK or standard epoxy thinner

CURING BEFORE SERVICE: BIO-GARD™ 258 may be immersed in fresh or salt water immediately after application. It will cure to a hard film within about 14 hours and is suitable for traffic after this time. Allow at least three (3) days at 77˚F before subjecting to aggressive chemical service from industrial solvents and similar materials.

WE URGE YOU TO READ THE MATERIAL SAFETY DATA SHEET (MSDS) BEFORE USING AND TO CALL THIN FILM TECHNOLOGY, INC., AS NECESSARY FOR ADVICE OR INFORMATION BEFORE ANY ACTUAL OR CONTEMPLATED APPLICATION.

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