

BIO-DUR® 660SW

FOR APPLICATION
ABOVE OR BELOW
WATER



Thin Film Technology, Inc.

PRODUCT DATA SHEET

BIO-DUR® 660SW 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 -even underwater!

BIO-DUR® 660SW provides permanent protection under the most adverse conditions. The formula is uniquely field-friendly and uses advanced low toxicity ingredients in a high build brushable/rollable product. A proprietary combination of UV absorbers and anticorrosive pigment assures maximum life in harsh environments. All colors including White are available and can be shipped "Non-Regulated" by USDOT, IATA and IMO.

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

RECOMMENDED USES

ANTICORROSIVE COATING: Splash zone, abrasion resistance above or below water.

REPAIR COMPOUND: Patching, leak sealing etc. above and below water.

FAIRING COMPOUND: Smoothing rough steel and concrete.

ENCAPSULATING COATING: Smooth, dense, easily decontaminated coating for steel and concrete.

TECHNICAL INFORMATION

VEHICLE TYPE	Epoxy/Aliphatic amines/modifiers
PIGMENTATION	Color/Inert/Anticorrosive/fibrous reinforcement
COLORS	Standard White, Black, Gray – others available
FINISH	Slight texture
THINNER	Not normally required
CLEANER	MEK or lacquer thinner
MIXING RATIO	1.0/1.0 v/v
INDUCTION TIME	Not required
POT LIFE	Approx. 40' / 77°F
FLASH POINT	Over 200°F
SOLIDS BY VOLUME	100%
SPREADING RATE/GAL.....	53.5 sq.ft./gal @ 30 mils, 8 sq.ft./gal @ 200 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 BELOW WATER: Remove marine biological settlement and corrosion by high pressure water jetting with or without abrasive. Conventional air/abrasive blasting works well at shallow depths however efficiency falls off sharply below, say, 10'. Hand held power tools such as needle guns or grinders can give good results if applied conscientiously in small areas but will be inadequate in large areas. Plan to apply the BIO-DUR®660SW within 45 minutes maximum after surface preparation to minimize rerusting or initial settlement of fouling slime, which interferes with initial adhesion.

SURFACE PREPARATION ABOVE WATER: Application above water requires similar high pressure water blasting or dry abrasive blasting to yield a firm, granular surface free of loose contamination. Since there is no problem from resettlement of marine fouling when working above water it is possible to delay application of the BIO-DUR 660SW indefinitely provided fresh contamination of the surface does not occur.

MIXING PROCEDURE: BIO-DUR® 660SW is supplied either in 2, 4 or 10-gallon kits of 2x1, 2x2 or 2x5 gallon containers respectively each of epoxy base and curing agent. These components are formulated in contrasting colors to facilitate complete mixing. "Black" BIO-DUR® 660SW for example is supplied with a jet-black epoxy base and an off-white curing agent which mix together to yield a black mixture. Visible streaks of either black or white seen during the course of mixing indicate "hotspots" of unmixed components. It is imperative to properly mix the components since unmixed "hotspots" of either base or curing agent ***will never cure.***

Remove equal quantities of base and curing agent from their cans and place them in a clean plastic or steel container. Mixing is easily accomplished by stirring with a "Jiffy" type mixer in a geared down, (high torque), ½" electric drill. Once mixing begins there will be about 40 minutes of working time available at 80°F. This time may be extended by keeping the components and mixture cool, rather than leaving it in a hot area.

APPLICATION:

1) Using a stiff brush or roller apply from a tray of mixed material aiming for a coverage rate of about 50 sq.ft./ gallon.

2) Application by heated plural spray is easy using the following equipment setup:

Graco "King" or similar with heated hoses.
Mix ratio: 1/1 by volume
Fluid pressure: 2,500 psi
Fluid temp: 140°F
Filters: Remove all filters
Tip size: .031" -.039" orifice

Note: For productivity estimate an application rate of one gallon per minute through a 0.035" tip at 2,500 psi.

CURING BEFORE SERVICE: BIO-DUR® 660SW may be immersed in fresh or salt water immediately after application. BIO-DUR® 660SW is designed and intended for water service at temperatures up to about 120°F. If resistance to severe chemical or higher heat environments is required we recommend either standard BIO-DUR® 560 or BIO-DUR® 561.

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



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SAFETY: This is a hazardous material if misused. Read and understand the Material Safety Data Sheet (MSDS) before use.

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