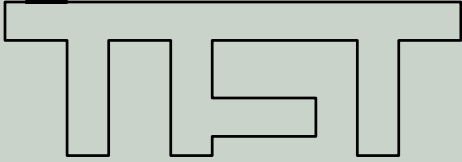


BIO-SEAL™

192

GENERAL PURPOSE
REINFORCING AND
MORTAR RESIN



Thin Film Technology, Inc.

PRODUCT DATA SHEET

BIO-SEAL™ 192 is based on pure liquid epoxy polymers and proprietary polyamine curing agents.

BIO-SEAL™ 192 is formulated with *no* volatile solvents and is so completely tolerant of water that it may be applied to damp or wet surfaces yet still function well as a reinforcing seal coating. Applications may be made using brush or roller with no especial ventilation requirements -odor during application is almost completely absent.

The standard "00000" version may be shipped "Non-Regulated" by air or surface -this material is ideal for most applications however it will yellow on exposure to UV light. A UV resistant version is available which uses the same epoxy base and curing agent BS 192-III111B, this material ships UN1760, "Corrosive Liquid N.O.S." PG III.

RECOMMENDED USES

SEALER -used to seal and protect concrete, brick and similar surfaces against chemical attack and penetration by water leading to freeze-thaw damage.

REPAIR MORTAR RESIN -used to prepare repair and smoothing mortar by stirring in clean silica sand. Typical sand loading of 100lbs sand per three (3) gallons of BIO-SEAL™ 192 resins will make about 7.5 gallons of a fully wetted, stiff mortar with excellent adhesion to cleaned concrete.

TECHNICAL INFORMATION

COMPOSITION:	Vehicle Type.....	Epoxy/Polyamines
	Pigmentation.....	None
	Solids by Volume.....	100%
	Flash Point	Over 212°F
	VOC	Essentially Zero
APPEARANCE:	Gloss	Matte when fully absorbed, unabsorbed is full gloss
	Color.....	Clear, slightly amber
APPLICATION:	Methods	Brush, roller
	Rec. Dry Film Thickness	N/A
	Rec. Wet Film Thickness.....	N/A
	Coverage, (thoer.)	N/A
	Induction Time	Not Required – may be used immediately after mixing
	Pot Life.....	Approx. 35' @ 77°F, (25°C)
	Dry Time – Dust Free	8 hours @ 77°F, (25°C)
STORAGE:	Dry Time - Service.....	12 hours handling, 24 hours light service @ 77°F,(25°C)
	Shelf Life.....	24 months under normal storage conditions
TRANSPORTATION:	USDOT, IATA,& IMO “Non-Regulated” –(00000version)
	UN1760, HAZ CLASS 8, PG III -(11111version)

APPLICATION NOTES

SURFACE PREPARATION:

Bare Concrete: surfaces should be allowed to cure for a minimum of 20 days before coating. Excessive weak surface laitance must be removed by either acid etching or, preferably, abrasive sweeping before coating. Aged, uncoated concrete surfaces are best prepared by abrasive sweeping. Unless carried out properly acid etching can give unpredictable results due to inadequate etching or inadequate rinsing, for this reason abrasive blasting is the preferred method of preparation. Contamination by oil or grease should be removed, with an industrial degreaser before either abrasive blasting or acid etching.

MIXING PROCEDURE: BIO-SEAL™ 192 is supplied in 2 gallon kits of comprising epoxy base in a part filled 2 gallon plastic pail with curing agent packed in a part filled one gallon steel can. A "Jiffy" type mixer with a high torque motor is recommended for proper blending. Pour the curing agent into the base and mix for about 2 minutes taking care to stir in all base material from the edges and base of the plastic pail, *unmixed material will never harden*. No induction or "sweat-in" time is required and the mixed material may be used immediately.

When using with sand or other inert mineral aggregate as a mortar first thoroughly mix a two-gallon BIO-SEAL™ 192 kit using a 1/2" "Jiffy" type mixer then pour this mixed material into a larger container such as a clean five gallon pail. Using the same Jiffy mixer add the desired mineral aggregate while stirring until the desired viscosity is obtained. As a guide it will be found that a two-gallon kit of BIO-SEAL™ 192 will accept about 66 lbs of sand to yield five gallons of a heavy but flowable mortar. This mortar can be used to smooth and level concrete, set safety railings into holes and so on. Addition of more sand will yield a stiffer mortar, which can be applied in heavy thickness without sagging. Fine sand makes a stiffer mortar than coarse sand. Sharp sand makes a stiffer mortar than rounded sand.

Pot life and reaction time is heavily dependent on temperature, as a general guide figure that each 18°F, (10°C), variation in temperature above or below 77°F, (25°C), will respectively halve or double the pot life and cure times.

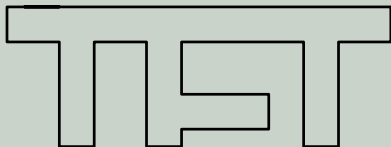
APPLICATION: Brush or roller application is straightforward and requires no special technique. Application on a floor is assisted by using a squeegee to distribute the BIO-SEAL™ 192 then backrolling to achieve an even coating. The material will thicken in cold weather and will be noticeably heavier at temperatures of 50°F and below. If permissible to use solvent it will be found that 5 -10% of lacquer thinner or MEK will greatly reduce viscosity in cold weather allowing much easier application.

CURING BEFORE SERVICE: BIO-SEAL™ 192 will cure to a hard film within 24 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.

TYPICAL PROPERTIES OF CURED BIO-SEAL 192:

Compressive Strength:	10,000+psi
Tensile Strength:	7,000+ psi
Tensile Elongation, (Flexibility):	3.2%
Hardness (Shore D):	78
Glass Transition Temp:	122°F

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.



Thin Film Technology, Inc. • P.O. Box 580669 • Houston, TX 77258-0669
(713) 910-6200 • Fax: (713) 910-6210 • Mobile: (281) 802-0723
Email: info@thinfilmtch.net • Website: www.thinfilmtch.net

SAFETY: This is a hazardous material if misused. Read and understand the Material Safety Data Sheet (MSDS) before use.
WARRANTY DISCLAIMER: The technical data given herein has been compiled for your help and guidance and is based upon our experience and knowledge. However, as we have no control over the use to which this information is put, no warranty, express or implied, is intended or given. We assume no responsibility whatsoever for coverage, performance or damages, including injuries resulting from use of this information or of products recommended herein.