BIO-CHEM™ 156

SUPER-TOUGH, 100% SOLID FLOORING

Thin Film Technology, Inc.

PRODUCT DATA SHEET

BIO-CHEM™ 156 is a solvent-free, highly adhesive flooring system designed for application over surfaces such as existing vinyl tiles and concrete. Finished thickness is typically 35 – 55 mils, which provides excellent wearability in a variety of colors and textures. The **BIO-CHEM™ 156** epoxy binder is extremely tough and has excellent resistance to a broad range of aggressive chemicals.

BIO-CHEM™ 156 is an extremely versatile system offering a choice of several hardwearing texture aggregates. All formulations are solvent free to eliminate the odor and explosion hazards of epoxy solvents. The system can be installed adjacent to other trades without objection resulting in minimum downtime and disruption.

BIO-CHEM™ 156 is designed for applications such as loading docks, battery rooms and material handling areas exposed to aggressive physical and chemical exposures.

RECOMMENDED USES

LOADING DOCKS: Generally used with aluminum oxide abrasive for maximum durability and traction. Reduces sweating following sudden changes in weather from cold to hot and humid.

CHEMICAL HANDLING AREAS: Resistant to 98%sulfurice acid and moist industrial chemicals.

FOOD PROCESSING FACILITIES: Meets USDA FSIS Directive 11,000.4 “Approval Of Paints and Coatings Used in Official Establishments” dated 8/12/94 for floors.

TECHNICAL INFORMATION

VEHICLE TYPE ……	Bis “F” Epoxy/Aliphatic amines
PIGMENTATION ……	Color/Inert/mineral aggregates
COLORS ……	All colors including white
FINISH ……	High gloss, textures from glass smooth to non-slip
THINNER ……...	Not normally required
CLEANER ……...	MEK or lacquer thinner
MIXING RATIO ……	Base/Cure :: 3/2 by volume
INDUCTION TIME. ……	Not required
POT LIFE ……	Approx. 20’/77°F
FLASH POINT ……	Over 200°F
SOLIDS BY VOLUME ……	100%
SPREADING RATE/GAL…….	Normally 105-125 sq.ft./gallon per coat
DRY TIME, (LIGHT TRAFFIC) …….	15 hours at 77°F – may be accelerated
APPLICATION METHOD……..	Squeegee/roller, roller
VOC. …….	Essentially zero

APPLICATION NOTES

SURFACE PREPARATION – This may be accomplished in several ways:

New Concrete: leave to cure properly for a minimum of 20 days before coating. Weak surface laitance must be removed by either; acid etching or abrasive blasting. (Note: acid etching can be difficult and unreliable unless performed with particular attention to proper acid application, scrubbing, rinsing, and drying.) Abrasive blasting, (recommended), may be effected by conventional open blasting or with "Blastrac"® type centrifugal equipment. The concrete surface after preparation should have the granular appearance of medium sandpaper.

Aged Concrete: best prepared by abrasive blasting. If contaminated, contact Thin Film Technology, Inc. for advice.

APPLICATION - follow the sequence described below:

Primer, or Base Coat is applied at a spreading rate of 100sq.ft./gal to yield a wet film of approximately 16mils. Application is made by pouring a mixed two-gallon kit over a roughly measured 200sq.ft. area then spreading using long handled squeegees followed by final backrolling. The formulation is self-leveling and will flow out to level most surface irregularities within a few minutes.

Aggregate is applied at a rate of 0.3 – 0.5lbs/sq.ft.either "chicken-feeding" by hand or by a mechanical aggregate spreader. The object is to "over-seed" or to apply enough aggregate to completely saturate the wet coating film leaving unabsorbed grains on the surface. Aggregate is spread within minutes of the primer coating application while it is still uncured and quite liquid. Aggregate selection is made according the anticipated service and colored desired. Aluminum oxide is the preferred material for severe mechanical service applications especially where good traction is required. On loading docks a 36-mesh grit will give satisfactory results however on ramps use the coarser 24 or even 14 mesh material. Quartz sand will give good service in light traffic areas however it will be quickly worn smooth when exposed to heavy wear from steel wheels, drum, etc.

Remove the excess aggregate by brushing with a stiff yard broom when the film has hardened sufficiently – this will be after about five hours at 77°F. The surface exposed after brooming will be flat and uniform. Loose grains left on the surface will be incorporated in the film when the coat is applied, if an extremely smooth surface is required these grains should be removed by vacuuming.

Note: repeat base coat/grit application to increase the thickness of the system in areas where particularly heavy mechanical wear is anticipated. This step will increase the thickness of the overall system by approximately 30 mils to a total thickness of approximately 65 mils.

Glaze or Sealer application is made following the same pour/squeegee/roll method used for the primer coat at a spreading rate of about 100sq.ft./gallon.

***CURING BEFORE SERVICE*:** Allow 12 hours curing at 77°F before initial service, which includes rolling, but not spinning, wheeled traffic. Unlimited service is possible after about 24 hours @ 77°F with "full cure" about 3 days after the last coating application.

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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