PolySpec THIOKOL

TECHNICAL DATA SHEET – POLYSPEC® IMO ULTRALITE TG

Revised: 2/2017

DESCRIPTION

PolySpec IMO UltraLite TG is a 100% solids, zero VOC's, trowel applied, modified epoxy resin that is mixed with proprietary lightweight aggregates. It is specially formulated to provide a seamless, lightweight surface for finished deck coverings.

IMO UltraLite has been approved as meeting parts 2, 5, and 6 of Annex 1 of the IMO Fire Testing Procedures (FTP) Code.

Coast Guard Approval Number 164.106/37/1 and 164.117/36/1

TYPICAL APPLICATION

PRIMER	PolySpec IMO UltraLite TG Primer/Grout Coat @ 5-7 mls
BODY COAT	PolySpec IMO UltraLite at desired thickness
SEAL COAT	PolySpec IMO UltraLite TG Primer/Grout Coat@ 5-7 mls
OPTIONAL	PolySpec IMO Approved Primary Deck Covering

PERFORMANCE DATA

WEIGHT@ 1/4" (MIL-D - 3135)	0.75-0.85 lb/ft^2
COMPRESSIVE STRENGTH (ASTM D - 695)	2300-2500 psi
FLEXURAL STRENGTH (ASTM C - 293)	1200-1400 psi
TENSILE STRENGTH (ASTM D - 412)	700-900 psi
ADHESIVE STRENGTH (MIL D - 3135)	>1000 psi
CORROSION RESISTANCE (MIL D - 3135)	No sign of corrosion, No softening or detachment from the steel plate
FLAME RESISTANCE (MIL-D - 3135)	Self Extinguishing, Flame Retardant
RESISTANCE TO ELEVATED TEMPERATURE (MIL-D-3135)	No flow, No slip, No softening

BENEFITS

- Lightweight
- Extended overcoat and application times, which ease application schedules
- No shrinkage, when applied at any thickness
- Excellent compatibility with virtually all epoxy primer systems
- Greater tolerance in areas of low humidity
- Zero VOC: safe for environment, installers, and occupants
- Absence of hazardous solvents
- Easy to repair
- Tenacious bond to substrate
- Good compressive strength
- Excellent flexural strength

RECOMMENDED USES

- PolySpec IMO UltraLite is recommended for military and shipboard applications. It is designed as an underlayment for ceramic tile, epoxy terrazzo, vinyl, polymeric decking materials and virtually any other covering
- Wet & dry spaces in all marine and shipboard applications, especially those prone to flexing
- Approved for deck leveling or fairing

STANDARD COLORS:

Light Orange

POLYSPEC® IMO ULTRALITE TG

TROWEL GRADE EPOXY LIGHTWEIGHT UNDERLAYMENT

ITW Engineered Polymers

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PACKAGING / COVERAGE

.5 cu ft per 5-Gallon Pail (used for mixing)
20 sq ft @ ¼" thickness
5 sq. ft @ 1" thickness
Primer/ Bond Coat: .75 Gallon 100-120 sq. ft. @ 10-12 WFT
Sealer / Grout Coat: .75 Gallon 80-100 sq. ft. @ 10-12 WFT

STORAGE & INSTALLATION

STORAGE ENVIRONMENT	Dry area, indoors: 18-27ºC / 65-80ºF
APPLICATION TEMPERATURE, AMBIENT (IDEAL)	16-24ºC / 60-75ºF
APPLICATION TEMPERATURE, SUBSTRATE	Minimum 50ºC / 5ºF above dew point
SHELF LIFE	6 month
POT LIFE	30 - 45 minutes

Material cures more slowly at cooler temperatures, and working time will be substantially reduced at higher temperatures. In hot weather, material should be cooled to 65ºF to 80ºF prior to mixing and application to improve workability and avoid shortened pot life. The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.

CONSIDERATIONS & LIMITATIONS

1. This product should not be installed at temperatures less than 50ºF (10ºC) or higher than 95ºF (35ºC).
2. Do not thin with solvents unless advised to do so by ITW Engineered Polymers.
3. Confirm product performance in specific chemical environment prior to use.
4. Prepare substrate according to "Surface Preparation" portion of this document.
5. Always use protective clothing, gloves and goggles consistent with OSHA regulations during use. Avoid eye and skin contact. Do not ingest or inhale. Refer to Material Safety Data Sheet for detailed safety precautions.
6. For industrial/commercial use. Installation by trained personnel only.

SURFACE PREPARATION

This product can be applied to the following substrate(s) that have been prepared according to PolySpec Surface Preparation Guidelines:

STEEL: Existing deck covering shall be totally removed. It is imperative that, before installation begins, all surfaces to which PolySpec decking product(s) will be applied - including deck, bulkheads, pipes, protrusions, etc.- are cleaned of all foreign matter such as dirt, dust, plaster, cement, paint, oil, grease, wax, rust, scale, moisture, concrete curing compounds or release agents, and other contamination.

- Metal surfaces must be cleaned until bright metal is exposed.
- Surface preparation should include vertical surfaces three inches up from the deck.
- Surface preparation shall be by the methods most feasible, such as grinding, abrasive vacuum blasting, sanding, or using a needle gun or other appropriate hand tool(s) to clean the deck.
- Remove all dust and other loose material so that adhesion is assured.

If existing substrate or deck covering cannot be removed, material must be cleaned and inspected for soundness prior to installing PolySpec product. If PolySpec product is to be installed over an existing system, it is imperative that the coating be thoroughly sanded, cleaned and wiped with isopropyl alcohol before installation of the PolySpec decking product(s). Urethane topcoats must be completely removed to ensure adhesion of the system.

Refer to PolySpec Guidelines for Subfloor Preparation for additional details.

INSTALLATION STEPS

1. **Primer/Bond Coat Application:** Mix PolySpec® IMO UltraLite Primer/Bond Coat for approximately 1–2 minutes. Scrape sides and bottom of can to ensure complete mixing. Do not turn mixing container over on deck to allow to drain. Apply one coat with brush, short nap roller or squeegee to all surfaces where PolySpec® IMO UltraLite is to be applied. Avoid puddles. IMO UltraLite should be applied while primer is still wet.
2. **Body Coat Application:** Add Part B to Part A and mix thoroughly for approximately 1–2 minutes with a Jiffy mixer. Scrape sides and bottom of can to make sure all components are thoroughly mixed. Pour mixed resin into pail. Add aggregate and mix approximately 2 minutes until all particles are wet. All components must be used promptly once the curing agent has been added to the resin to avoid having material set up in the container. Apply one coat of PolySpec® IMO UltraLite using standard cement finishing tools. Use low angle lighting to detect trowel marks. Hand trowel to compact, level, and smooth finish. Material can be applied to desired thickness, down to feather edge. Allow material to cure for a minimum of 14 hours or until hard. Knock off any burrs with sander or the edge of a steel trowel. Sweep/vaccum floor clean prior to grout coat application.
3. **Grout Coat Application:** One coat of PolySpec® IMO UltraLite Grout Coat is normally required to achieve desired finish but a second coat may be added if necessary. Workmen should wrap shoes in polyethylene, masking tape or other suitable covering to protect the surface. Mix PolySpec® IMO UltraLite material together making sure to stir thoroughly and to scrape the sides and bottom of the container to ensure proper mixing. Pour from the mixing container at once to prolong working time. Apply by brush to base, corners, around piping, and other hard to reach areas. For walking surfaces and other accessible flat areas, apply with a red or white rubber squeegee. Then roll out material using a short nap, ¼" roller to remove ridges, lap marks or drops on the surface. DO NOT OVER SEAL. A properly sealed surface has all voids filled with sealer uniformly. Allow sealer to cure long enough to walk on, usually 12 to 16 hours depending on the temperature. All epoxy coatings cure faster in warm weather and slower in cold weather. Avoid contact with water to the surface for 36 hours depending on the temperature.
   CAUTION: Contact with water will cause whitish, cloudy spots if the epoxy is not fully cured.
   NOTE: *Follow installation instructions to ensure proper material cure.*

CLEANING EQUIPMENT

Once cured, use PolySpec® All Purpose Cleaner a low-evaporating cleaner. Always wear gloves when using this product.

Wash hands, arms and face with warm soapy water.

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