



TECHNICAL DATA SHEET – POLYSPEC® FLEX IMO

Revised: 8/2017

DESCRIPTION

PolySpec® FLEX IMO is a uniquely formulated decorative polymer deck covering system that combines aesthetics and fire safety. Through the use of proprietary technology, PolySpec® FLEX IMO meets IMO/SOLAS requirements for surface flammability, smoke, and toxicity. PolySpec® FLEX IMO consists of a two-component, 100% solids epoxy resin base coat, color coat and a clear epoxy receiving and sealing coats. This tough system is finished with a scratch resistant clear polyurethane topcoat. PolySpec® FLEX IMO has been approved as meeting parts 2 and 6 of Annex I of the IMO Fire Testing Procedures Code and is classified as a primary deck covering. Coast Guard Approval # 164.106/18/0

TYPICAL APPLICATION

BASE COAT	Flex IMO @ 60 mils
COLOR COAT	Flex IMO color @ 16 mils
SEAL COAT	Flex IMO Seal Coat @ 16 mils
BROADCAST	Vinyl Chips
POLYURETHANE TOP COAT	TuffRez® 236 @ 4-5 mils

PERFORMANCE DATA

TENSILE STRENGTH (ASTM D-638)	1,500 psi
TENSILE ELONGATION (ASTM-D-638)	40%
FLEXURAL STRENGTH (2" MANDREL)	no cracking
FIRE RESISTANCE (IMO RES.A.687(17))	Not Readily Ignitable
SMOKE AND TOXICITY (IMO RES.MSC-61(67)) PART 2	Passed

BENEFITS

- Allows for visibility and breathable air in the event of a ship fire
- Resists ignition so that fire cannot easily spread to other decks within the ship or drilling platform
- Extremely low VOC's, almost no odor
- Decorative, seamless appearance
- Easy to clean and maintain

RECOMMENDED USES

- Corridors
- Mess areas
- Kitchens
- Staterooms
- Infirmary passageways

GENERIC DESCRIPTION: Epoxy Flake Deck Coating

STANDARD COLORS:

Navy Blue and Sand

PACKAGING/COVERAGE:

Base Coat @ 60 mils
Flex IMO Base Coat 4.5 - Gallon / 120 sq. ft.
Color Coat @ 16 mils
Flex IMO Color Coat .8 - Gallon / 65 sq. ft.
Sealer Coat @ 16 mils
Flex IMO Sealer Coat .75 - Gallon / 75 sq. ft.
Vinyl Chips (flakes) (Call for coverage)
10 - Pound Bag
55- Pound Bag
Top Coat @ 4-5 mils WFT:
TuffRez® 236 1.0- Gallon / 350 sq. ft.

POLYSPEC® FLEX IMO
FLEXIBLE VINYL CHIP SEAMLESS FLOOR

STORAGE & INSTALLATION

STORAGE ENVIRONMENT	Dry area, 65-80°F
APPLICATION TEMPERATURE, AMBIENT	50-85°F
APPLICATION TEMPERATURE, SUBSTRATE	Minimum 5°F above dew point
SERVICE TEMPERATURE	Maximum 150°F
SHELF LIFE	12 months
POT LIFE, @ 77°F	40 minutes
FOOT TRAFFIC, @ 77°F	24 hours
FULL SERVICE, @ 77°F	48 hours

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 65°F to 80°F 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

- Floors should be sloped to drain to prevent standing water or chemicals. As with any surface, all spills should be removed as soon as possible to prevent a slipping hazard.
- Do not thin with solvents unless advised to do so by ITW Engineered Polymers.
- Confirm product performance in specific chemical environment prior to use.
- Prepare substrate according to "Surface Preparation" portion of this document.
- Do not apply to slabs on grade unless a heavy unruptured vapor barrier has been installed under the slab.
- 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.
- For industrial/commercial use. Installation by trained personnel only.

SURFACE PREPARATION

STEEL: For steel surfaces, a "Near White Metal" ultra high-pressure wash or abrasive blast with anchor profile of 2-4 mils in accordance with Steel Structures Painting Council Specification SP-10 or NACE No. 2 is required.

Refer to PolySpec Surface Preparation Guidelines for more details.

INSTALLATION STEPS

- FLEX IMO BASE COAT:** The first step is to mix Part A and Part B separately with mechanical mixer prior to combining. This is very important.
IMPORTANT: Always pour Component B into Component A to insure uniform color and consistency of mix. Using a Jiffy mixer blade and a 3/8" variable speed drill, thoroughly mix Component A and Component B together for two minutes. Stir slowly at a low speed. Do not whip bubbles into mixture. Stop and scrape the sides and bottom of the can to be sure that all the material is mixed together. Blend for an additional 30 seconds. Pour entire contents of pail on surface to prolong working time. Use a 1/4" notch trowel to apply the Base Coat evenly across the deck. Enough coating should be applied to yield 40-60 mils thickness. Allow the system to stand 15 minutes to allow any entrapped air to come to the surface. Using a spiked roller, roll the entire surface to break any bubbles and help the system fall out evenly. Use immediately after mixing. Working time can be extended by pouring material onto the surface and spreading out to the desired thickness. If the can begins to heat up, do not use the product, as it will be difficult to spread and may result in an uneven texture. One 4.5 gallon unit will cover approximately 120 square feet. Allow to cure for 16-24 hours at 75°F (24°C), or until tack free.
- FLEX IMO COLOR COAT:** The first step is to mix Component A and Component B separately with a mechanical mixer prior to combining. This is very important.
IMPORTANT: Always pour Component B into Component A to insure uniform color and consistency of mix. Using a Jiffy mixer blade and a 3/8" variable speed drill, thoroughly mix Component A and Component B together for one minute. Stir slowly at a low speed. Do not whip bubbles into the mixture.

Stop and scrape the sides and bottom of the can to be sure that all the material is mixed together. Blend for an additional 30 seconds. It is important that this product be thoroughly mixed to insure color uniform cure and consistency throughout. Use a red or white rubber squeegee or a flat trowel and apply at 15-20 mils. Backrolling may be necessary to eliminate trowel marks or ridges. Use immediately after mixing. Work very quickly - pot life is short, especially at higher temperatures.

Broadcast: The Flake or Quartz Broadcast is performed at this stage. Refer to Decorative Broadcast Instructions for Detailed Application Procedures for each option.

Working time can be extended by pouring all material onto the surface and spreading out to the desired thickness.

- If the can begins to heat up, do not use the product, as it will be difficult to spread and may result in an uneven texture. One unit will cover approximately 80 square feet. Allow to cure for 12-16 hours at 75°F (24°C), or until tack free.

Cleaning: Once color coat is fully cured, all loose decorative broadcast material must be removed by sweep/vacuum method. Once all loose material is removed, refer to Decorative Broadcast Instructions for detailed instructions on the different finishing methods available to obtain the desired surface finish.

- FLEX IMO SEALER COAT:** Do not allow the deck to become dirty from dust, dirt, oil and other contaminants by allowing the crew to walk on the deck with dirty shoes. It is important at this stage of the application to keep the deck clean and free from dirt and dust. **DO NOT WALK ON THIS SURFACE WITH DIRTY SHOES. COVER YOUR SHOES WITH PLASTIC OR OTHER PROTECTIVE MATERIALS. WIPE FEET BEFORE ENTERING SPACE AND /OR INSTALL TACK MATS.**

Pour Component B into Component A to insure uniform mix. Using a Jiffy mixer blade and a 3/8-inch variable speed drill, mix Component A with Component B. Mix for one minute at low speed. Working in a small area, apply a 16-mil coat. A 3/4 gallon bucket will cover approximately 75 square feet. Applying this coat in a thickness greater than 20 mils can cause discoloration. Allow sealer to cure for 12-16 hours at 75°F (24°C), or until tack free.

- FLEX IMO TOP COAT(S):** AT THIS STAGE IT IS EXTREMELY IMPORTANT ONCE AGAIN TO PROTECT THE DECK FROM CONTAMINATION BY DIRTY SHOES. COVER YOUR SHOES WITH PLASTIC OR OTHER PROTECTIVE MATERIALS. Please follow precisely the following mixing instructions for TuffRez 236: Stir the A Component for one minute. Add the B component to Component A and mix well for two minutes. Add Component C and mix for additional one minute.

Caution: **DO NOT WHIP BUBBLES INTO MIXTURE.** Apply at 4-5 wet mils with a short nap mohair roller. Make certain to cover the area thoroughly. Cross-rolling may be necessary to help eliminate trowel marks or ridges. **IMPORTANT:** Allow 24 hours cure time at 75°F (24°C) before opening to light foot traffic. Open to full service in 48 hours. Ultimate cure for chemical resistance and scratch resistance is 72 hours. Cure times are based on 75°F (24°C) and 50% relative humidity.

C:\DOC\FLEXIMOTDS04015-0206TDS

TuffRez and PolySpec are ® Registered Trademarks of ITW Engineered Polymers.

© Copyright 2017 ITW Engineered Polymers. All rights reserved. Published technical data and instructions are subject to change without notice. Please visit the online catalog at www.polyspec.com for the most current technical data and instructions. Or, you may contact your ITW Engineered Polymers representative for current technical data and instructions.

ITW Engineered Polymers warrants its products to be free from defects in material and workmanship. ITW Engineered Polymers' sole obligation and Buyer's exclusive remedy in connection with the products shall be limited, at ITW Engineered Polymers' option, to either replacement of products not conforming to this warranty or credit to Buyer's account in the invoiced amount of the nonconforming products. Any claim under this Warranty must be made by Buyer to ITW Engineered Polymers in writing within five days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify ITW Engineered Polymers of such nonconformance as required herein shall bar Buyer from recovery under this warranty.

ITW Engineered Polymers makes no other warranties concerning this product. No other warranties, either expressed or implied, or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply. In no event shall ITW Engineered Polymers be liable for consequential or incidental damages.

Any recommendation or suggestion relating to the use of the products made by ITW Engineered Polymers, whether in its technical literature, or in response to specific inquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having requisite skill and know-how in the industry, and therefore it is for the Buyer to satisfy itself of the suitability of the products for its own particular use, and it shall be deemed that Buyer has done so, at its sole discretion and risk. Variation in environment changes in procedures of use, or extrapolation of data may cause unsatisfactory results. ITW Engineered Polymers cannot guarantee that color will conform to sample, if provided.