



protective coatings and resin flooring

PRODUCT DATA

FLEXIGEL DECORO SYNTHETEK

PRODUCT DESCRIPTION

Flexigel Decoro Synthetek is a nominal 5-6 mm (3/16-1/4 in.) IMO-approved, resilient, aliphatic polyurethane flooring system. The seamless Synthetek system recreates the appearance of a traditional wooden Teak deck while maintaining the waterproof, acoustic, thermal insulation and ergonomic properties of the Flexigel Decoro system. These characteristics combined with the system's corrosion, wear and slip resistant properties make it the ideal solution for pool decks, balconies and other open deck areas. Flexigel Decoro Synthetek is comprised of a two-component, UV resistant mortar consisting of urethane base and hardener.

SEALER OPTIONS

To protect the integrity of the Flexigel Decoro base, a sealer coat is recommended for most applications. For more information, contact an API USA representative.

PACKAGING

Flexigel Decoro Synthetek is packaged in units for easy handling. Each unit consists of:

- (1) 5 gallon pail of Polyol
- (1) 3 gallon pail of Isocyanate

COVERAGE

At a nominal 5-6 mm (3/16-1/4 in.) pre-sanded thickness, each unit of Flexigel Decoro Synthetek will cover approximately 3.3 m² (35 ft²) of surface. This amounts to an average application rate of 6.4 kg/m².

STORAGE CONDITIONS

Store all components of Flexigel Decoro Synthetek between 5 and 30°C (41 and 86°F) in a dry area. Avoid excessive heat and direct sunlight. Do not freeze. The shelf lives of the Polyol and Isocyanate are 3 years and 2 years, respectively, in the original, unopened container.

COLOR

Flexigel Decoro Synthetek is available in six standard colors. For more information on color options, contact an API USA representative.

SUBSTRATE

Flexigel Decoro Synthetek is suitable for application over properly prepared steel, aluminum, concrete or wood surfaces. It is not recommended for use over asphalt, mastic, gypsum-based products, brick or painted surfaces. These must first be removed by mechanical means to expose the substrate prior to overlayment.

PHYSICAL CHARACTERISTICS

| | |
|----------------------------------|---|
| Hardness | 35 |
| (ASTM D-2240, Shore D) | |
| Density | 1,170.9 kg/m ³ |
| Mix Ratio by Weight | 33.7/100 |
| (Hardener/Base) | |
| Mix Ratio by Volume | 2.75/1 |
| (Base/Hardener) | |
| VOC Content | 14 g/L |
| (ASTM D-2369, Method E) | |
| Percent Solids | 99% |
| Flash Point | 94°C (>201°F) |
| Pot Life | 60 min |
| (@23°C/74°F) | |
| Cure Rate | 6-8 hours for initial set |
| (@23°C/74°F) | |
| | 24 hours for light traffic |
| | 7 days for ultimate physical properties |

Note: The above physical properties were measured in accordance with the referenced standards. Samples of the actual floor system, including binder and filler, were used as test specimens. All sample preparation and testing is conducted in a laboratory environment. Values obtained on field applied materials may vary, and certain test methods can only be conducted on lab-made test coupons.

SUBSTRATE PREPERATION

Proper mechanical preparation is critical to ensure an adequate bond and system performance. The substrate must be clean, dry and free of contamination before material application. When applying over aluminum, stainless steel, or galvanized substrates, the use of Primer 5 is required immediately after mechanical preparation. Questions regarding substrate preparation should be directed to an API USA representative.

PRIMING/UNDERLAYMENT

The use of Primer per Metalli is required for all applications of Flexigel Decoro Synthetek. If leveling is required to even the substrate, Alleggerito Sottofondo is highly recommended. The Alleggerito Sottofondo must be sanded and cleaned prior to Synthetek application.

MIXING FLEXIGEL DECORO SYNTHETEAQ

Proper mixing is critical for the products to exhibit the proper application, cure and physical properties.

1. If the base shows signs of separation, pre-mix with a heavy-duty, slow-speed drill (400-600 rpm) with a Jiffy Mixer until homogenous.
2. Pour the hardener into the pail containing the base, scraping any residual hardener from the bottom and sides of the pail. Mix for 60 seconds.
3. Pour the contents of the pail into a clean container and mix for an additional 30 seconds. If necessary, add Accelerante while mixing to catalyze the curing process. See the table in the Appendix to determine how much Accelerante to add.

APPLYING FLEXIGEL DECORO SYNTHETEAQ

1. Pour the contents of the pail into a bead on the floor where it can be applied.

Note: It is important to pour subsequent beads of material into existing, fresh Synthetead already applied. This will eliminate potential batch lines in the finished product.

2. Apply the material to the substrate using a 6 mm x 6 mm (¼ in. x ¼ in.) notched trowel. To achieve the proper, uniform thickness, hold the trowel at approximately 45°, floating the notches over the surface of the substrate.

Note: It is critical to apply the Synthetead at 3.3 m² (35 ft²) per unit. This will ensure the proper thickness and help to avoid sanding through to the substrate.

3. A spike roller is then used to roll the material. The use of a spike roller allows air to escape and levels the surface of the material. Synthetead should be spike rolled a minimum of six times (forward and back) to eliminate any entrained air.

CUTTING THE GROOVES

1. After the Synthetead has cured, begin the cutting process. Using an approved router with a 1/4 in. double flute straight router bit and a straight edge, cut all border grooves to leave a 15 cm (6 in.) border between any walls, fixtures, or permanent equipment. For rounded borders, the use of flexible strips should be used to achieve a smooth cut. For this, first trace where the cut is to be made, then secure the strip to the Synthetead using double-sided tape. Remember to account for the width of the router when placing the molding. Groove depth should not exceed 4 mm (5/32in.).
2. Next, cut the longitudinal grooves into the surface of the Synthetead (the width of the planks – the distance between grooves, should be determined by the customer). Once all longitudinal grooves are cut, a series of transverse grooves should be cut every third plank, creating planks of length no longer than 3.5 m (11.5 ft.).

FILLING THE GROOVES

1. The grooves in the Synthetead system are filled using Flexigel Groove Filler. Use the same mixing procedure for the Groove Filler that was used for the Synthetead.
2. Apply the Groove Filler to the Synthetead using a squeegee or flat finishing trowel, ensuring the material fills to the top of the grooves. It is okay for excess material to remain on the surface of the Synthetead, as this will be sanded off once cured.

SANDING FLEXIGEL DECORO SYNTHETEAQ

1. After the Synthetead has cured, begin the sanding process. Using an approved floor sander with either 36 or 60 grit sandpaper (dependent upon required slip-resistance) and an edge sander with 60 grit sandpaper, sand the surface of the Flexigel Decoro to expose the rubber chips.
2. If a smooth finished is desired, sand the surface again, this time using 100 grit sandpaper.
3. Once sanding is complete, vacuum the floor until clean, and prepare to apply the next layer of material. If dust remains on the floor after vacuuming, wipe the floor with rags that are damp with water.

APPLYING SEALER

See the appropriate product data sheet for sealer application instructions.

RECOMMENDATIONS

- Apply only to clean, sound, dry and properly prepared substrates.
- Application and curing times are dependent upon ambient and substrate conditions.
- Minimum ambient and substrate temperatures are 5°C (41°F) at the time of application. However, it is not advisable to apply the material if the temperature is below 10°C (50°F).
- Maximum ambient and substrate temperatures are 35°C (95°F) at the time of application.
- Substrate temperature should be greater than 3°C (5°F) above the dew point.
- Do not apply material if the relative humidity exceeds 85%.
- Dispose of waste materials in accordance with government regulations.
- Clean all equipment immediately after use with scouring pads and acetone. Hardened material will require mechanical means for removal.

PRECAUTIONS

- The use of safety glasses and impervious gloves is required during application.
- Avoid contact with all liquids as they may cause skin and/or eye irritation. In case of contact, flush the area with copious amounts of water for at least 15 minutes and seek medical attention.
- Wash hands thoroughly with soap and warm water after use.
- Use only with adequate ventilation.

APPENDIX – ACCELERANTE

The table below shows how much Accelerante to add to each mix of Flexigel Decoro Synthetack, by volume and by weight. Add the Accelerante to the mix after transferring to a clean container.

| Temperature Range °C (°F) | Volume of Accelerante mL (fl. oz.) | Weight of Accelerante g (oz.) |
|--------------------------------------|---|--|
| 4-6 (39-43) | 46.0 (1.56) | 40.0 (1.41) |
| 6-8 (43-46) | 38.0 (1.28) | 33.1 (1.17) |
| 8-10 (46-50) | 31.0 (1.05) | 27.0 (0.95) |
| 10-12 (50-54) | 26.0 (0.88) | 22.6 (0.80) |
| 12-14 (54-57) | 22.0 (0.74) | 19.1 (0.67) |
| 14-16 (57-61) | 19.0 (0.64) | 16.5 (0.58) |
| 16-18 (61-64) | 16.0 (0.54) | 13.9 (0.49) |
| 18-20 (64-68) | 13.0 (0.44) | 11.3 (0.40) |
| 20-24 (68-75) | 9.0 (0.30) | 7.8 (0.28) |
| 24-28 (75-82) | 4.0 (.14) | 3.5 (0.12) |
| 28-32 (82-90) | 0 | 0 |

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