PRODUCT SPECIFICATIONS

API (A DIVISION OF STONHARD, INC.)

API manufactures and installs resin decking systems designed for the Marine and Offshore markets. Our products are manufactured in the United States (ISO 9001) and conform to the Jones Act for installations performed in the U.S. All of our products are IMO and USCG certified. API offers its products on a turnkey basis and holds the warranty on all of its installations. The following specifications are proven systems with a long track record of success in the cruise, commercial, and military markets.

INTRODUCTION

This document is designed to present specifications for the products and systems offered by API. The specifications include the following information for each system:

- Description
- Typical Applications
- Application Cycle
- Schematic Side View
- System Options

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1) **Plastigel ERF** – Decorative Flake System

Two-component, epoxy undercoat broadcast to refusal with decorative vinyl chips. The sealed color flake broadcast results in a seamless and attractive, slip-resistant, cleanable surface. Available in an extensive range of finishes and color options, Plastigel ERF is a decorative alternative to tile, vinyl, and paint finishes.

**TYPICAL APPLICATIONS**

- Office Spaces
- Locker Rooms
- Medical Centers
- Crew Quarters
- Heads / Showers
- Dining / Mess Halls
- Hallways / Corridors
- Other Interior Areas that require a decorative finish

**Application Cycle**

2. Application of 5-15 mm of APILITE U070 (optional lightweight epoxy underlayment). Preparation of the APILITE U070 to create a bond with the ERF system.
3. Application of 30 mil of ERF UNDERCOAT.
4. DECORATIVE FLAKE broadcast into the wet ERF UNDERCOAT (to refusal). Cleaning/sweeping of the excess flakes.
5. Application of PLASTIGEL SEALER to secure the flakes. Sanding of the PLASTIGEL SEALER to knock down sharps and ridges.
6. Application of a 2nd coat of PLASTIGEL SEALER.

**Options**

- Underlayment – for leveling and building floor thickness
- 1/4” or 1/16” flake sizes
- Limitless flake color options and combinations
- Various texture options – smooth to added texture
- Cove Base

See Plastigel ERF Product Data Sheet for more details.
2) **Plastigel SLT** – Decorative Quartz System

Two-component, epoxy undercoat broadcast to refusal with decorative quartz aggregate. The sealed color quartz broadcast results in a seamless and attractive, slip-resistant, cleanable surface. Available in an extensive range of color options, Plastigel SLT is a decorative alternative to tile, vinyl, and paint finishes.

**TYPICAL APPLICATIONS**

<table>
<thead>
<tr>
<th>Office Spaces</th>
<th>Heads / Showers</th>
<th>Other Interior Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locker Rooms</td>
<td>Dining / Mess Halls</td>
<td>that require a</td>
</tr>
<tr>
<td>Medical Centers</td>
<td>Hallways / Corridors</td>
<td>decorative finish</td>
</tr>
<tr>
<td>Crew Quarters</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Application Cycle**

2. Application of 5-15 mm of APILITE U070 (optional lightweight epoxy underlayment). Preparation of the APILITE U070 to create a bond with the SLT system.
3. Application of PLASTIGEL PRIMER.
4. DECORATIVE QUARTZ broadcast into the wet PLASTIGEL PRIMER (to refusal). Cleaning/sweeping of the excess aggregate.
5. Application of SLT UNDERCOAT.
6. DECORATIVE QUARTZ broadcast into the wet SLT UNDERCOAT (to refusal). Cleaning/sweeping of the excess aggregate.
7. Application of PLASTIGEL SEALER to secure the aggregate.

**Options**

- Underlayment – for leveling and building floor thickness
- Extensive color options
- Cove Base

See Plastigel SLT Product Data Sheet for more details.
3) **Flexisecurit ER/Flexilit Coatings** – Technical Flooring System

Two-component, rigid epoxy base that can be topped with various two-component, polyurethane coatings with excellent chemical, abrasion, corrosion, and UV resistance. The system is designed for both exterior and interior applications, with multiple degrees of texture available. Consult an API representative for the proper system recommendation.

### TYPICAL APPLICATIONS

<table>
<thead>
<tr>
<th>Stairways</th>
<th>Marshalling Areas</th>
<th>Storage Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hallways / Corridors</td>
<td>Engine Rooms</td>
<td>Technical Spaces</td>
</tr>
</tbody>
</table>

### Application Cycle

2. Application of 5-15 mm of APILITE U070 (optional lightweight epoxy underlayment).
   Preparation of the APILITE U070 to create a bond with the FLEXISECURIT ER.
3. Application of 3 mm FLEXISECURIT ER.
   Preparation of the FLEXISECURIT ER to create a bond with the FLEXILIT coating.
4. Application of FLEXILIT.
5. Application of a 2nd coat of FLEXILIT.

### Options

- Underlayment – for leveling and building floor thickness
- Extensive color options
- Texture options:
  - Flexilit Liscio – smooth
  - Flexilit SN – light texture (texture suspended in the coating)
  - Flexilit Antiskid – medium texture (texture suspended in the coating)
  - Flexilit C – heavy texture (broadcast into the coating)
  - Custom texture – consult an API representative

See Flexisecurit ER & Flexilit Product Data Sheets for more details.
4) Flexigel Decoro – Resilient, Decorative Chip System

Two-component, polyurethane system designed as a high-performance alternative to vinyl, tile, and carpet. This resilient option yields an attractive, ergonomic, and sound reducing system that maintains excellent cleanability and UV resistance.

**TYPICAL APPLICATIONS**

<table>
<thead>
<tr>
<th>Open Decks</th>
<th>Heads / Showers</th>
<th>Other Interior/Exterior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sports Decks</td>
<td>Dining / Mess Halls</td>
<td>Areas that require a</td>
</tr>
<tr>
<td>Medical Centers</td>
<td>Hallways / Corridors</td>
<td>decorative finish</td>
</tr>
<tr>
<td>Crew Quarters</td>
<td>Fitness Centers</td>
<td></td>
</tr>
</tbody>
</table>

**Application Cycle**

2. Application of PRIMER PER METTALI.
3. Application of 5-15 mm of ALLEGGERITO SOTTOFONDO (optional flexible underlayment). Preparation of the ALLEGGERITO SOTTOFONDO to create a bond with the DECORO system.
4. Application of 4-5 mm of FLEXIGEL DECORO.
5. DECORATIVE CHIP broadcast into the wet FLEXIGEL DECORO (to desired appearance). Sanding of the FLEXIGEL DECORO to create a smooth finished surface.
6. Application of API SEALER.

**Options**

- Underlayment – for leveling and building floor thickness
- Matte or Gloss sealer options
- Texture – light texture may be added into the sealer
- Soft Version – lower Shore hardness
- Multiple color options

See Flexigel Decoro Product Data Sheet for more details.
5) **Flexigel Decoro Syntheteak** – Resilient Teak Wood Alternative

Two-component, polyurethane system designed as a high-performance alternative to traditional Teak wood. This resilient option yields an attractive, ergonomic, and sound reducing system that maintains excellent cleanability and UV resistance.

**TYPICAL APPLICATIONS**

<table>
<thead>
<tr>
<th>Open Decks</th>
<th>Flag Areas</th>
<th>Other Areas where Teak would otherwise be installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entryways</td>
<td>Interior Spaces</td>
<td></td>
</tr>
</tbody>
</table>

**Application Cycle**

2. Application of PRIMER PER METTALI.
3. Application of 5-15 mm of ALLEGGERITO SOTTOFONDO (optional flexible underlayment). Preparation of the ALLEGGERITO SOTTOFONDO to create a bond with the DECORO system.
4. Application of 5-6 mm of FLEXIGEL DECORO SYNTHETEAK.
5. Creation of the GROOVES by router and saw.
6. Application of GROOVER FILLER. Sanding to an anti-skid “Grade C” finish.
7. Application of API SEALER.

**Options**

- Underlayment – for leveling and building floor thickness
- Custom designs and groove patterns
- 5 color options

See Flexigel Decoro Syntheteak Product Data Sheet for more details.
6) **Galley Floor** – Heavy-duty Galley System

Heavy-duty, textured system designed specifically for commercial kitchen and galley environments. The seamless finish yields excellent impact and abrasion resistance. The chemistry of the system allows for superior resistance to thermal shock, thermal cycling, and chemical attack from the spillage of acids, alkalis, solvents, fats, oils, sugars, and other corrosive substances.

**TYPICAL APPLICATIONS**

<table>
<thead>
<tr>
<th>Galleys</th>
<th>Food Prep Areas</th>
<th>Laundry Rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sculleries</td>
<td>Kitchen Storage</td>
<td>Food Waste Rooms</td>
</tr>
</tbody>
</table>

**Application Cycle**

2. Application of FLEXIPLAST PRIMER.
3. Application of 15-50 mm of FLEXIPLAST HT (high thickness epoxy underlayment) over wet primer.
4. Application of 2 mm FLEXIPLAST SL to seal the surface.
   Preparation of the FLEXIPLAST SL.
5. Application of 2 mm FLEXISECURIT ER.
6. GRADED QUARTZ broadcast into the wet FLEXISECURIT ER (to refusal).
   Cleaning/sweeping of the excess aggregate.
7. Application of FLEXILIT to secure the aggregate.
8. Application of a 2nd coat of FLEXILIT.

See Flexiplast, Flexisecurit ER, & Flexilit Product Data Sheets for more details.
7) **Sound Dampening** – Two-layer Sound Dampening Underlayment

Two-layer system with excellent viscoelastic properties that helps to reduce vibration and noise levels at the source. Vibration can be further reduced when the system is supplemented with steel plates placed into the first layer.

**TYPICAL APPLICATIONS**

<table>
<thead>
<tr>
<th>Engine Rooms</th>
<th>Crew Quarters</th>
<th>Other Areas where noise and vibration reduction is required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Decks</td>
<td>Corridors</td>
<td></td>
</tr>
</tbody>
</table>

**Application Cycle**

2. Application of PRIMER PER METTALI.
3. Application of 3mm VISCOGEL to reduce vibration and noise level.
4. Application of steel plates into the wet VISCOGEL to further reduce vibration (optional).
5. Application of 7mm FLEXIGEL M60 to further reduce noise level.
6. Application of preferred overlayment (optional).

(1) (2) (3) (4) (5) (6)

**Options**

- Steel plates placed into the Viscogel layer – for additional vibration dampening
- Overlayments – API systems, carpet, vinyl, etc.

**Contact API Technical Department for additional sound and vibration dampening performance specifications.**

**See Viscogel & Flexigel M60 Product Data Sheets for more details.**
8) Surface Preparation Standards

Acceptable surface preparation is determined based on the SSPC-VIS 3 Guide for Power and Hand Tool Cleaning. For all API materials, SSPC-VIS, E SP 11 and F SP 11 are the only acceptable surfaces. Please refer to a SSPC-VIS 3 manual for reference, or contact an API representative. All substrates must be clean, dry and free of contaminants. For applications over stainless steel, aluminum, or galvanized metals, the use of Primer 5, a wash primer, is required immediately prior to overcoating the prepared substrate.

9) Warranty Statement

API will warrant the materials and workmanship for a period of 1 year from final completion of the installation. For material sales only, API will warrant the materials from defect only and not for the application / installation of the materials.

10) Required Certifications and Installer Requirements

All API products are IMO / USCG certified. API products are manufactured in the United States to ISO 9001 Standards. The installation team shall have a minimum of 5 years of experience installing similar systems.

11) General Application Requirements

1. Evacuation of other trades from the installation area.
2. API flooring systems will follow the existing contour of the floor unless otherwise stated.
3. Suitable weather protections to respect minimum application conditions.
4. Adverse weather and strong wind can stop the application and influence the appearance of the deck. In case API is asked by the Owner to continue the application notwithstanding the adverse weather conditions, API will not be responsible for the final result of the application.
5. Obstacles, coamings, steps and any material above the steel shall be reduced to the thickness of the resin floor required.
6. Electrical power at work site.
7. Disposal of empty cans, trash, and debris.
8. All necessary organization with local authorities to allow the work.
9. As work produces dust, equipment sensitive to dust must be protected.

12) Recommended Application Conditions

1. Dry surface
2. Minimum ambient and surface temperature = 10°C (50°F)
3. Maximum ambient and surface temperature = 35°C (95°F)
4. Maximum relative humidity = 85%
5. Substrate temperature should be at least 3°C (5°F) above the dew point

Should you need further details, please contact Don Sampson, General Manager, API
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