



VLW Lightweight Underlayment

US MIL-PRF 3135H Type II & III, Class 2, Grade A and Grade B

VLW Lightweight Underlayment is a 100% solids epoxy resin base combined with a high performance, very lightweight aggregate, forming a trowel-applied decking underlayment suitable for a wide range of applications under all deck covering materials. Its advanced formulation creates a seamless, smooth, and highly effective underlayment system that can be directly applied to properly prepared metal surfaces. The rapid curing properties of VLW Lightweight Underlayment minimize installation downtime, making it ideal for quick turnover maintenance and repair projects. This versatile underlayment offers every advantage for lightweight filler, sloping, or leveling compound applications.

Recommended *minimum* application thickness

1/8 inch	3.175 mm	125 mils
50 SQFT² (4.65 M²) Per Kit		

Recommended *average* application thickness

1/4 inch	6.35 mm	250 mils
25 SQFT² (2.32 M²) Per Kit		

Recommended *maximum* application thickness per pass

2 inches	50.80 mm	2000 mils
3 SQFT² (0.28 M²) Per Kit		

Item Number	Description	Weight
0984N-Kit	VLW Lightweight Underlayment – Pail Kit	31 lbs./14.06 KG
0984N-BK	VLW IT Lightweight Underlayment – Bag Kit	31 lbs./14.06 KG

Kit and Packaging sizes (1 kit = Resin + Catalyst + Aggregate)
 Refer to price list to purchase each component separately

Installation Steps for VLW Lightweight Underlayment

Step 1: Apply VLW Bond Coat

1. Pour the contents of the VLW Bond Coat onto the working surface.
2. Spread the bond coat evenly using a notched squeegee or an epoxy roller.

Step 2: Mix Resin Components

1. Pre-mix components A and B separately.
2. Combine the two components and mix thoroughly for 2 minutes.
3. Pour the combined resin into a separate bucket large enough to accommodate the aggregate.
4. Slowly add the aggregate to the combined resins and mix until the blend resembles wet pumice sand.

Step 3: Apply the Underlayment Mixture

1. Pour the mixture onto the working surface.
2. Trowel the mixture smooth to the desired thickness, typically around 1/8 inch to 1/4 inch (3.175 mm to 6.35 mm).

Step 4: Cure and Grout the Underlayment

1. Once the VLW Underlayment is fully cured, scrape it with a dry trowel to remove any excess material.
2. Mix and pour TM Grout Resin onto the cured surface.
3. Work the TM Grout Resin into the cured material using a flexible squeegee trowel.
4. Remove any excess TM Grout Resin and allow it to cure. (Refer to TM Grout TDS for detailed curing instructions).

Step 5: Apply Primary Decking System

1. Apply the desired primary decking system over the fully cured and grouted underlayment.

Surface Preparation and Site Readiness

Surface Preparation

Metal deck surfaces must be cleaned of rust, loose scale, and dirt following SSPC SP11/NACE No. 6 standards. Grease and oil should be removed with approved solvents and clean rags as per SSPC SP-1 standards. The resulting surface should be clean, bright, and protected against corrosion before applying Dex-O-Tex materials. The Very Lightweight Underlayment system can be applied to a cured Navy Formula 150 Primer, MIL-DTL-24441, MIL-PRF23636, Manufacturer Bond Coat, or VLW Primer. Consult your local Dex-O-Tex Marine Representative when dealing with wood or other deck surfaces.

Job Site Survey

Measure and record ambient temperature, humidity, surface temperature, and the temperature of the materials being used. Do not proceed with the application if conditions are outside the recommended parameters. Inspect all materials to be used to ensure they are the correct type and size, and verify that all components are present. Check all containers to ensure they have a proper factory seal with no signs of damage or leakage. Pre-mix liquid materials into a smooth, homogeneous blend before use.

Environmental Conditions for Application

All materials must be mixed, applied, and cured at the job site under specific environmental conditions to ensure proper curing and performance. Make sure conditions comply with the following requirements:

1. **Temperature:** The ideal application and curing temperature range for the materials should be adhered to, both in metric and US customary units. (e.g., 15°C to 30°C / 59°F to 86°F)
2. **Humidity:** Monitor and maintain the relative humidity within the specified range suitable for the material being used.
3. **Ventilation:** Ensure adequate ventilation to facilitate the curing process and to maintain a safe working environment.

Substrate temp.	Min. 50°F (10°C)	Max. 80°F (26.66°C)
Relative Humidity	Min. <90% (32.22°C)	Max. 85% (29.44°C)
Ambient Air Temp.	Min. 50°F (10°C)	Max.90°F (32.22°C)

Min. Re-Coat Window	12Hrs at 60°F (15.55°C)	24Hrs at <40°F (4.44°C)
Max. Re-Coat Window	24Hrs at 60°F (15.55°C)	48Hrs at <40°F (4.44°C)
Cure to Full Service	48Hrs at 60°F (15.55°C)	96Hrs at <40°F (4.44°C)

Material Handling and Application Guidelines

Material Disclosure

Materials should arrive in their original packaging and containers, with unbroken seals and manufacturer's labels containing brand names and storage directions. Upon receipt, immediately check materials to ensure all correct items are present and in good condition. Sort and store materials in a temperature-controlled storage area.

Applicator Notes

For optimal workability, Dex-O-Tex materials should be stored and mixed within a temperature range of 18°C-27°C (65°F-80°F). A warmer substrate can shorten the material's pot life and cause stickiness, while a cooler substrate may prolong curing time and lead to resin blush. Maintain a deck and room temperature of at least 18°C (65°F) throughout the curing process until reaching full service time. When mixing polymeric resin components, use all provided resins as they are premeasured to the correct ratios. Scrape all hardener from its container into the resin; avoid draining unmixed resin onto the flooring surface, as this can result in soft or uncured spots. Keep the unfinished flooring surface clean to prevent contamination that could affect the final appearance. Ensure good ventilation during application, especially in confined spaces. Always refer to and follow the manufacturer's Safety Data Sheets (SDS) for handling polymeric materials.