



LOCK H899 OPTIMUM™

HIGH PERFORMANCE, FAST-CURING HYBRID ADHESIVE FOR RESILIENT FLOORING

TECHNICAL DATA SHEET 05/08/2025

SMART ADVANTAGES

- Extremely high bond performance
- Cures in as little as 3 hours
- No moisture testing required*

DESCRIPTION

LOCK H899 OPTIMUM™ is a high-performance one-component hybrid adhesive, ideal for resilient floor coverings in demanding settings. With LOCK H899 OPTIMUM™, you can install resilient floor wet rooms due to its resistance to topical water and areas that need to withstand temperature changes to avoid warping.

LOCK H899 OPTIMUM™ offers exceptionally strong mechanical resistance, making it ideal for areas with extreme foot traffic and rolling loads like airports, lobbies, and hallways. With cure times in as little as 3 hours, this adhesive is perfect for fast-track installations.

ULTIMATE VERSATILITY

LOCK H899 OPTIMUM™ creates a tight moisture-resistant bond with solid vinyl plank, tile, sheet goods and rubber sheet and rubber tile flooring, recycled rubber underlayments, fiberglass sheet, heterogenous/homogenous sheet, and resilient stair applications. It may be used over properly prepared concrete, APA-grade plywood, or gypsum underlayments in dry, above-grade applications, as well as radiant heat, clean metals, cured epoxy coatings, and other common non-porous substrates.

MOISTURE & ALKALI RESISTANCE

LOCK H899 OPTIMUM™ is highly resistant to moisture vapor and alkaline conditions. As such, no moisture testing is required on new construction or substrates with an intact moisture-vapor barrier.

LEED CONTRIBUTION

LOCK H899 OPTIMUM™ is a 0 VOC formula is FloorScore® certified, and may contribute toward LEED® credits under LEED® v4 Credits: IEQ Credit 2.1 and IEQ Credit 2.2.

DIRECTIONS FOR USE

Read and understand the data sheet completely before beginning installation. Follow the appropriate industry standards, including ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.



Resilient flooring materials have vastly different substrate preparation and installation requirements, which are essential to a successful installation regardless of flooring material or adhesive being installed. Therefore, always do a test area to ensure proper bonding and adhesive spread rate, and/or to become familiar with proper application techniques prior to use. Follow floor-covering manufacturer's installation instructions and proper adhesive application rate.

SURFACE PREPARATION

All substrates must be clean, dry, flat, free of voids, projections, loose materials, oil, grease, sealers and all other surface contaminants. Concrete substrates must be porous, at least 28 days old, and installed per ASTM F710. Porous substrate should NOT be smooth and reflective; it must have a concrete surface profile of CSP 1-2 similar to a broomed finish, as defined by ICRI (Guideline No. 03732). It also must be tested in accordance with ASTM F3191 and be found porous, where a ¼" drop of water must absorb into the concrete within 1 minute, and comply with the floor covering manufacturer's specifications. Surface areas requiring patching or leveling must be treated using Bostik cement patches and/or self-leveling underlayments. Concrete slabs cannot have an entrained vapor barrier additive. Use of a topical vapor barrier additive

*On new construction or substrates with an intact moisture-vapor barrier.

This supersedes and replaces in its entirety all previously published versions of this document. B72994

requires a bond test. LOCK H899 OPTIMUM™ is not a moisture vapor barrier and is not a replacement for a moisture mitigation system.

Slab-Cote™ Extreme Moisture-Vapor Barrier Coating is recommended for installations where moisture and/or alkalinity in excess of stated limits may exist or might occur from the concrete slab.

INSTALLATION

Bond testing prior to the installation will help identify the appropriate application rate, open and working time, and any potential bonding problems to the substrate or flooring. Follow the flooring manufacturer's installation instructions and guidelines regarding adhesive application rate and method. Always follow the manufacturers guidelines for layout as well as any product specific installation instructions. LOCK H899 OPTIMUM™ may only be used as a wet set adhesive and requires no open or flash time.

Spread LOCK H899 OPTIMUM™ evenly with the proper trowel as described. Periodically lift floor covering immediately after installation to ensure proper slab coverage and transfer to the back of the flooring.

Tile/Modular Products: Avoid working directly on the flooring when installing Tile/Modular products with LOCK H899 OPTIMUM™. If you need to walk, kneel, or work on the floor before the adhesive cures (about 3 hours), use knee boards or appropriate coverings like ¼" underlayment to prevent damage and adhesive displacement. Start from your chosen point and mark adhesive start and stop lines approximately 2 feet apart or at a comfortable distance. Spread the adhesive between these lines. Place Tile/Modular products into the adhesive immediately after application. Painter's tape can be used to secure rows or ends of tiles that gap, though it's optional. Hand roll the tiles as you go, then use a 75-100 lb., 3-section roller to roll in both directions to ensure proper adhesive transfer. Regularly check to ensure 100% adhesive transfer and that you are within the adhesive working time.

Sheet Products: Apply the adhesive using the appropriate trowel notch based on the product and subfloor. Place sheet products into the adhesive immediately after application. Roll the installation starting from the center with a 75-100 lb., 3-section roller in both directions toward the walls to expel trapped air and ensure 100% adhesive transfer. Spread the adhesive using the appropriate trowel as determined by the product TDS.

Resilient Adhesive Stair Treads & Risers Installation: Apply the adhesive to the stair treads and risers, ensuring the flooring is placed into the adhesive immediately. After placing the flooring, start in the center of the stair and use a hand roller to roll the flooring in both directions, ensuring 100% adhesive transfer to the backing. This step is crucial. Avoid using the stairs until the adhesive has fully cured (8 hours).

Note: In some instances, the use of knee boards may be advantageous for some flooring types.

CURE TIME

Working time varies depending on the installation temperature and humidity, but it typically ranges from 60 to 90 minutes. Start installing the flooring as soon as the adhesive is spread. Avoid spreading more adhesive than can be installed within the working time. If a thin skin forms on the adhesive on the slab prior to installation of the flooring, it may be possible to re-trowel the adhesive and obtain proper coverage and transfer. Re-trowel 90° to the ridges, and if no sign of the original trowel marks remain, install additional flooring and check coverage and transfer. Once the flooring is placed, roll the entire installation with a 75-100 lb. smooth roller. If the adhesive is left open beyond the working time, it will not provide sufficient adhesion to the flooring.

Let the adhesive cure for 3 hours before allowing foot traffic and 4 hours before moving heavy furniture. Avoid heavy traffic, rolling loads, or furniture placement for 8 hours after installation. This adhesive is moisture-cured, so ambient relative humidity and temperature will affect the working time. Humidity impacts the curing process more than temperature; higher humidity speeds up the cure.

CHEMICAL & PHYSICAL PROPERTIES

Use Environments	Offices/Light Commercial	Yes
	Residential	Yes
	Hospitality	Yes
	Healthcare	Yes
	Heavy Commercial	Yes
	Exterior	If Covered
	Wet Areas	Yes
Substrates	Concrete	Yes
	APA-Grade Plywood	Yes
	Gypsum Underlayment	Yes*
	Well-Bonded Vinyl	Yes
	Terrazzo	Yes
	OSB Underlayment	No
	Clean Metal	Yes
	Asphalt	No
	Cork	Yes
Flooring Types	LVT or LVP	Yes
	Sheet Vinyl Plank & Tile	Yes
	VCT	Yes
	Fiberglass Sheet	Yes
	Heterogeneous/ Homogeneous Sheet	Yes
	Olefin-Backed Vinyl	Yes
	Rubber sheet & tile, Recycled rubber underlayment	Yes
	Resilient stair coverings	Yes
	Cork	Yes
Cured Physical Properties	Full Return to Service	8 hrs
	Rolling Loads Capacity	High
	Slab Moisture Limits	99% RH
	pH Resistance	12.0 pH
Uncured Physical Properties	Ease of Troweling	Extremely Easy
	Odor	Slight
	Required Flash Time	None
	Working Time	60-90 minutes
	Color	White
	Density (lbs/gallon)	12.2
Chemical Properties	Chemistry Type	Modified Silane Polymer
	Adhesive Type	Wet-Set High Performance
	VOC**	0 g/L
	Plasticizer Resistant?	Yes
	Solvent Free?	Yes
	Flash Point	>212°F

* Dry, above-grade applications only

** As calculated per SCAQMD Rule 1168

COVERAGE

Ensure 100% coverage for all flooring, as inadequate coverage will void any warranties. Periodically check flooring to make sure coverage requirements are met. Trowel sizes listed below are suggested to ensure proper bond while maximizing coverage of adhesive.

TROWEL RECOMMENDATIONS

Smooth or non-porous substrates: 1/16" x 1/32" x 1/32" U-Notch Trowel
Coverage: 220–260 square feet per gallon

Rough or porous substrates: 1/16" x 1/16" x 1/16" Square-notch trowel
120–150 square feet per gallon

CLEANUP

As you work, immediately clean any adhesive from resilient flooring using a clean, damp cloth. Immediately clean all tools and equipment before adhesive cures. Follow flooring manufacturer's recommendation for cleanup. Denatured alcohol or other solvent may be needed to remove dried adhesive. Some flooring may not be compatible with solvents such as denatured alcohol.

STORAGE AND SHELF LIFE

Shelf life is one year from date of manufacturing in unopened, original packaging when stored at temperatures between 65°F (18°C) and 95°F (35°C).

LIMITATIONS

- Do not use on substrates that have been chemically cleaned or over treated plywood.
- Do not use to install vinyl-backed flooring over asphalt-based (cutback) adhesive residues.
- Shelf life is 1 year from date of manufacture in unopened container. Store indoors at a temperature between 65–95°F.
- LOCK H899 OPTIMUM™ is not a moisture vapor barrier. Substrates with high moisture vapor content require an epoxy moisture vapor barrier.
- Substrate must be clean and porous, at least 28 days old and installed per ASTM F710.

PACKAGING

LOCK H899 OPTIMUM™ is available in cases of 1 gallon pails, 4 per case (36 cases per pallet).

CAUTION

MAY IRRITATE EYES, SKIN AND RESPIRATORY TRACT. Do not get in eyes, on skin or on clothing. Do not breathe fumes. Use with adequate ventilation. Wash thoroughly after handling. Store container in a cool, dry area with lid tightly sealed. Do not reuse container.

KEEP OUT OF REACH OF CHILDREN

FIRST AID TREATMENT

If in eyes or on skin, rinse with water for at least 15 minutes. If swallowed, call a Poison Control Center or doctor immediately. Do not induce vomiting.

SEE SAFETY DATA SHEET

Chemical Emergency: 800-424-9300 (USA),
703-527-3887 (International)

Medical Emergency: 866-767-5089

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