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PRIMER 49 TM - TECHNICAL DATA SHEET (TDS)

100% Solids Low-Viscosity Deep-Penetrating Epoxy Adhesion Primer | Document Rev: 2026.11

MIX RATIO (A:B)	VISCOSITY	ADHESION (D4541)	COVERAGE YIELD
2A : 1B by Volume	350-450 cps Low-Visc	> 450 psi Slab Fail	200-250 Sq Ft / Gal

1. PRODUCT DESCRIPTION & COMMERCIAL USE

PRIMER 49 is a 100% solids, low-viscosity two-component penetrating epoxy primer formulated to wet out and anchor deeply into the capillary pores of mechanically ground concrete slabs (<= 3 lbs MVER / <= 75% RH). Displaces trapped slab air to eliminate outgassing blisters and pinholes in subsequent high-build EPOXY 49 metallic or flake broadcast coats.

2. ASTM PHYSICAL & PERFORMANCE PROPERTIES (TESTED @ 72 deg F / 50% RH)

PROPERTY	TEST METHOD	TYPICAL VALUE / SPECIFICATION
Volume Solids Content	ASTM D2697	**100% Solids**
VOC Content	EPA Method 24	**< 10 g/L (Zero Solvent)**
Mix Ratio (Part A : Part B)	By Volume	**2 Parts A : 1 Part B by Volume**
Mixed Viscosity @ 77 deg F (25 deg C)	ASTM D2196	**350 - 450 cps (Deep Capillary Penetration)**
Shore D Hardness	ASTM D2240	**80 - 82 Shore D**
Pull-Off Concrete Adhesion	ASTM D4541	**> 450 psi (Cohesive Concrete Failure)**
Tensile Strength	ASTM D638	**7,200 psi**
Compressive Strength	ASTM D695	**10,800 psi**
Water Absorption	ASTM D570	**< 0.10%**
Max Permissible Slab Moisture	ASTM F1869 / ASTM F2170	**<= 3.0 lbs MVER / <= 75% RH (Use MVB 49 if higher)**
Pot Life (Mass @ 72 deg F)	Exotherm Limit	**25 - 35 Minutes**
Tack-Free Time @ 72 deg F	Field Cure Schedule	**4 - 6 Hours**
Recoat Window @ 72 deg F	Bonding Window	**6 - 24 Hours (Abrade w/ 80-Grit if >24 Hrs)**
Coverage Rate	6-8 Mils WFT / DFT	**200 - 250 Sq Ft / Gallon (600-750 Sq Ft / 3-Gal Kit)**

3. SURFACE PREPARATION, MIXING & FIELD APPLICATION PROTOCOL

* 1. Mechanical Prep: Diamond grind concrete to ICRI CSP 2-3 profile. Vacuum slab completely dust-free.
* 2. Moisture Verification: Confirm slab moisture is <= 3 lbs MVER and <= 75% RH. For slabs >3 lbs MVER or >75% RH, use MVB 49.
* 3. Mixing: Combine 2 Parts A with 1 Part B by volume into a clean mixing bucket. Blend 3 minutes at 350 RPM with spiral paddle.
* 4. Immediate Ribbon Pour: Pour mixed primer onto concrete slab immediately in ribbons. Do not leave mixed mass in container.
* 5. Squeegee & Back-Roll: Pull tight across concrete pores with flat squeegee at 200-250 sq ft/gal, then back-roll with 3/8" nap roller.
* 6. Outgassing Defense: Apply on a stable or falling slab temperature (afternoon/evening) to prevent thermal air expansion.
* 7. Recoat Schedule: Apply EPOXY 49 body coat as soon as PRIMER 49 is tack-free (6-8 hrs) and within 24 hours.

4. OSHA GHS SAFETY & HANDLING SUMMARY (REFER TO FULL SDS BEFORE USE)

* SIGNAL WORD: Part A (Epoxy Resin) = WARNING | Part B (Modified Polyamine Hardener) = DANGER (OSHA GHS).
* Hazard Statements: Part B: H314 Severe skin burns/eye damage. Part A & B: H317 Skin sensitizer, H411 Aquatic toxicity.
* Required PPE: Chemical-resistant nitrile gloves, safety goggles, long sleeves, and adequate jobsite ventilation.
* First Aid: Eyes - Rinse cautiously with water for 15 minutes and seek immediate medical care. Skin - Wash with soap and water.
* Storage & Shelf Life: Store sealed at 60 deg F-85 deg F (15 deg C-30 deg C) away from direct sun and freezing. 12-month unopened shelf life.