TESTING FOR CURING MEMBRANES, SEALERS & Ddensifiers

OVERVIEW

Curing membranes, sealers, and densifiers interfere with coating adhesion by blocking penetration and reducing surface energy. Identifying their presence is critical before installing resinous coatings or moisture mitigation systems.

Types of Surface Treatments

- Acrylic curing membranes (most common).
- Waxes and film-forming sealers.
- Silicate and siliconate densifiers.
- Penetrating water repellents.

Detection Methods

- Water Drop Test: Beading indicates sealer.
- pH Test: Excessive neutrality may signal densifier.
- Scratch Test: Hard glossy sheen often means membrane present.
- Grinding Sample: If concrete powders immediately → untreated; if it “scuffs” or polishes → densified.
- Solvent Reaction Test: Xylene softens some acrylic membranes.

Removal Guidelines

- Curing Membranes: Shot blast to CSP 3–5.
- Acrylic Sealers: Solvent wash + mechanical prep.
- Densifiers: Heavy grinding (20–40 grit metals).
- Water Repellents: Mechanical removal always required.

Why This Matters

- Coatings cannot bond to sealed substrates.
- Moisture mitigation primers require direct concrete contact.
- Adhesion failures often trace back to unremoved film treatments.