SURFACE CONTAMINANT IDENTIFICATION & REMOVAL PROCEDURES

OVERVIEW

Contaminants in or on concrete significantly reduce adhesion and can lead to peeling, fisheyes, pinholes, and discoloration. Proper identification and removal are essential before applying epoxies, polyureas, polyaspartics, or urethane coatings.

Common Contaminants

- Oils/Grease: Automotive fluids, food oils, hydraulic leaks.
- Curing Compounds: Film-forming sealers left from construction.
- Adhesives: Mastics, carpet glue, tile thinset.
- Chemical Residues: Fertilizers, salts, acids, solvents.
- Moisture-Blocking Agents: Densifiers, silicates, membranes.
- Biological Growth: Mold, mildew, organic staining.

Identification Methods

- Water drop test: beading indicates contamination.
- Darkened areas may indicate oil saturation.
- UV light for hydrocarbons.
- Grinding test: clogged diamonds indicate soft, oily slab.

Contaminant Removal

- Oils: Deep degreasing + repeated grinding or shot blasting.
- Adhesives: Mechanical removal only—no chemicals.
- Curing Compounds: Shot blast or coarse grind CSP 3–5.
- Densifiers/Silicates: Heavy grinding or complete removal.
- Salts: Neutralizing wash + mechanical prep.

Best Practices

- Always remove contamination mechanically.
- Never rely on chemical strippers alone.
- Re-test with water droplet after cleaning.
- Document contamination before and after prep.