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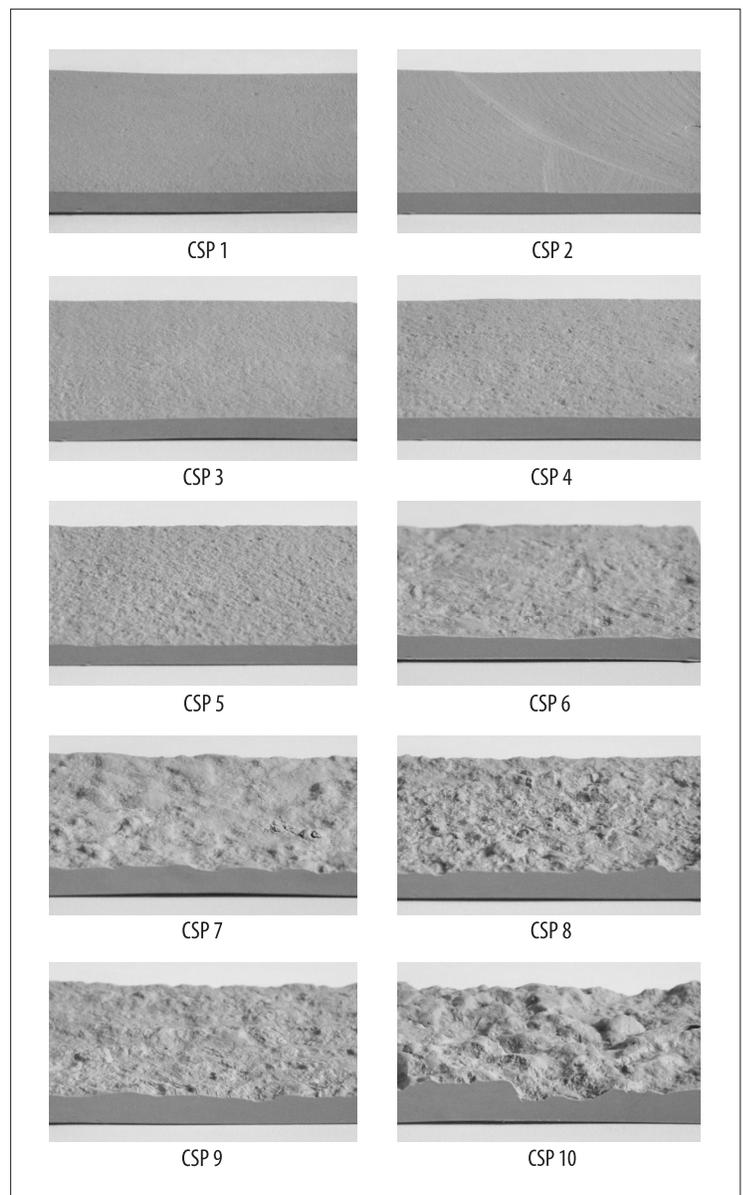
Concrete Surface Preparation

ErgonArmor manufactures and sells a variety of corrosion protection technologies to be applied over concrete surfaces such as flooring, tanks, secondary containment, vessels, and chimneys. While we design our products to perform in extreme environments, one key element in their success is proper surface preparation. Most failures are directly related to improper or insufficient surface preparation. This technical bulletin was created to provide you with tools to help identify and recommend proper surface profile levels.

The pictures on the right are of the Concrete Surface Profile (CSP) placards. These were developed and sold by the International Concrete Repair Institute (ICRI) to provide a visual and textural guide for identifying and confirming the proper surface profile of your concrete.

The 10 classifications (CSP 1-10) of surface texture were determined by the average distance from the peaks of the surface to the valleys. These profiles are accepted industry standards to guide and provide all parties, from the specifier to the installer, with the proper surface texture for a successful bond.

A lower profile number is a smoother surface, while a higher profile provides a much rougher texture or "tooth."





DETERMINING THE PROPER SURFACE PROFILE FOR CONCRETE

TREATMENT TO BE APPLIED (mils)	CSP 1	CSP 2	CSP 3	CSP 4	CSP 5	CSP 6	CSP 7	CSP 8	CSP 9	CSP 10
Sealers (0 – 3)	████████████████████									
Thin-film (4 – 10)	████████████████████									
High-build (10 – 40)			████████████████████							
Self-leveling (50 – 125; 1/2 in)				████████████████████						
Polymer Overlay (125 – 250; 1/8 in – 1/4 in)					████████████████████					
PREPARATION METHODS										
Grinding	████████████████████									
Abrasive Blasting		████████████████████								
Shot and Grit Shotblasting			████████████████████							
Scarifying				████████████████████						
High Pressure/Ultra High (UH) Pressure						████████████████████				
Scabbling							████████████████████			
			PREPARATION METHOD RANGE FOR MOST APPLICATIONS							

NOTES

BEFORE SURFACE PROFILING

- Clean and decontaminate the concrete, and ensure it's dry.
- Use mechanical, rather than chemical (acid etch), surface profiling methods for ErgonArmor treatments.

AFTER SURFACE PROFILING AND BEFORE APPLICATION

- Repair of cracks, depressions, bug holes, spalls, etc.
- Address or honor any control or expansion joints.
- Install or create a job standard to serve as the approved acceptable:
 - Surface preparation
 - Surface profile
 - Application

FAMILIARIZE YOURSELF WITH THESE CONCRETE SURFACE PREPARATION STANDARDS FOR YOUR NEXT PROJECT:

ORGANIZATION	REFERENCE NUMBER	DESCRIPTION
ICRI	310.02	Selecting and specifying concrete surface preparation for sealers, coatings, polymer overlays, and concrete repair with CSP chips
SSPC/NACE	SP13/NACE 6	Surface preparation of concrete
ASTM	D4258	Standard practice for surface cleaning concrete for coating
ASTM	D4259	Standard practice for abrading concrete
ASTM	D7682	Standard practice for replication and measurement of concrete surface profiles using replica putty

ICRI=International Concrete Repair Institute, SSPC=Society for Protective Coatings, NACE=NACE International, ASTM=ASTM International