CONCRETE SURFACE PROFILE & PREPARATION

Proper profile of existing concrete is essential for achieving success. Since there are many products available for overlays and restoration, it is important you know the surface condition requirements for the specific product you plan to use. Taking steps to correctly prepare the existing concrete surface will save you time and money, and can substantially reduce the possibility of coating failure.

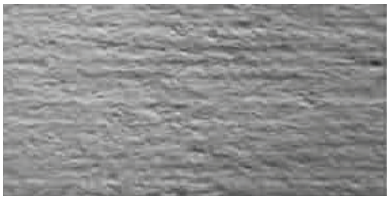
INTERNATIONAL CONCRETE REPAIR INSTITUTE (ICRI):

These Concrete Surface Profiles were developed by the International Concrete Repair Institute (ICRI), are divided into ten classifications (CSP 1-10) of surface textures based on the average distance from the peaks of the surface to the valleys. They are accepted industry standards to help guide the installer achieve the proper texture for successful bonding of the overlay or coating. The lower number profiles are smoother (CSP 1 is nearly flat), and the higher numbers have more “tooth” and get progressively rougher.

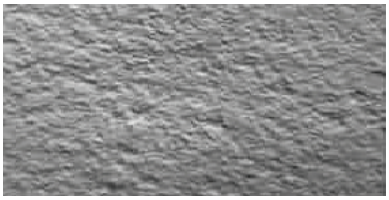
CSP 1
(ACID ETCH)

CSP 2
(HEAVY ETCH / GRIND)

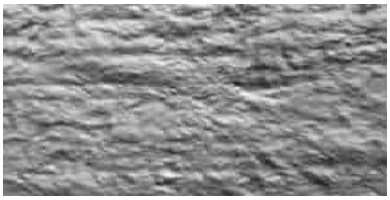
CSP 3
(HEAVY GRIND / LIGHT SHOTBLAST)



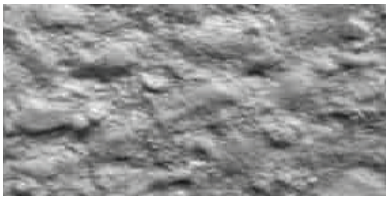
CSP 4
(LIGHT SCARIFICATION)



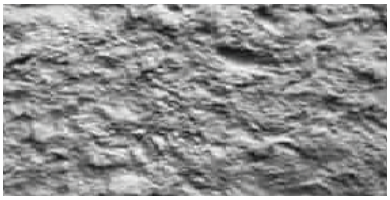
CSP 5
(MEDIUM SHOTBLAST)



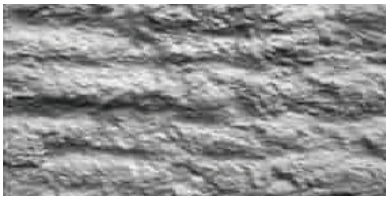
CSP 6
(MEDIUM SCARIFICATION)



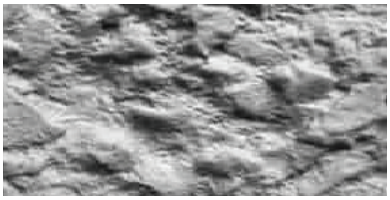
CSP 7
(HEAVY BLAST)



CSP 8
(SCABBED)



CSP 9
(HEAVY SCARIFICATION)



CSP 10
(COURSE PLANING)

NOTES:

• In addition to having the surface clean from chemicals, oil, grease, curing compounds, and any other contaminants, the surface profile of the existing concrete needs to be suitable for the selected overlay. Always consult with a Ghostshield Representative for the recommended surface profile.

• Mechanical profiling or acid etching are techniques used to prepare floors for overlays and coatings. Mechanical profiling should always be the first method of choice for roughening the concrete; it is also the safest method. Acid etching can provide adequate surface preparation for some coatings, sealers and toppings, however, acids can be difficult to rinse completely and neutralize, require a well-ventilated area, and they will not remove petroleum-based products or animal vegetable oils from the existing concrete.

• More aggressive surface preparation techniques (flame blasting, scarifying, scabbling and milling/ rotomilling) risk the introduction of micro-cracking. Additional surface preparation is required when micro- cracking occurs.

• Repairs for cracking or spalling should be done in the surface preparation process, before the final overlay.

• Apply the coating to a mock-up or test area under the same conditions of ambient temperature and surface moisture as the installation to verify the surface profile is adequately prepared.