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ICRI 2021 Fall Convention



*Challenges to Successfully Installing Products Adhered to
Concrete Surfaces from the Perspective of a
Commercial/Industrial Subcontractor*



Bill Hall
QC Companies

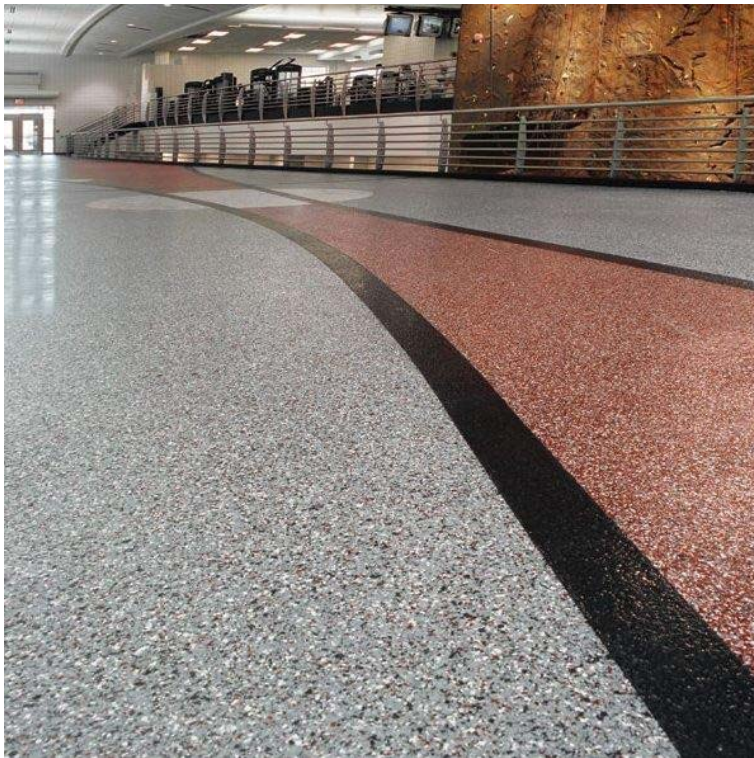


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Market Segments

- Resinous Coatings
- Concrete Polishing
- Floor Leveling / Flattening/ Smoothing
- Moisture Mitigation

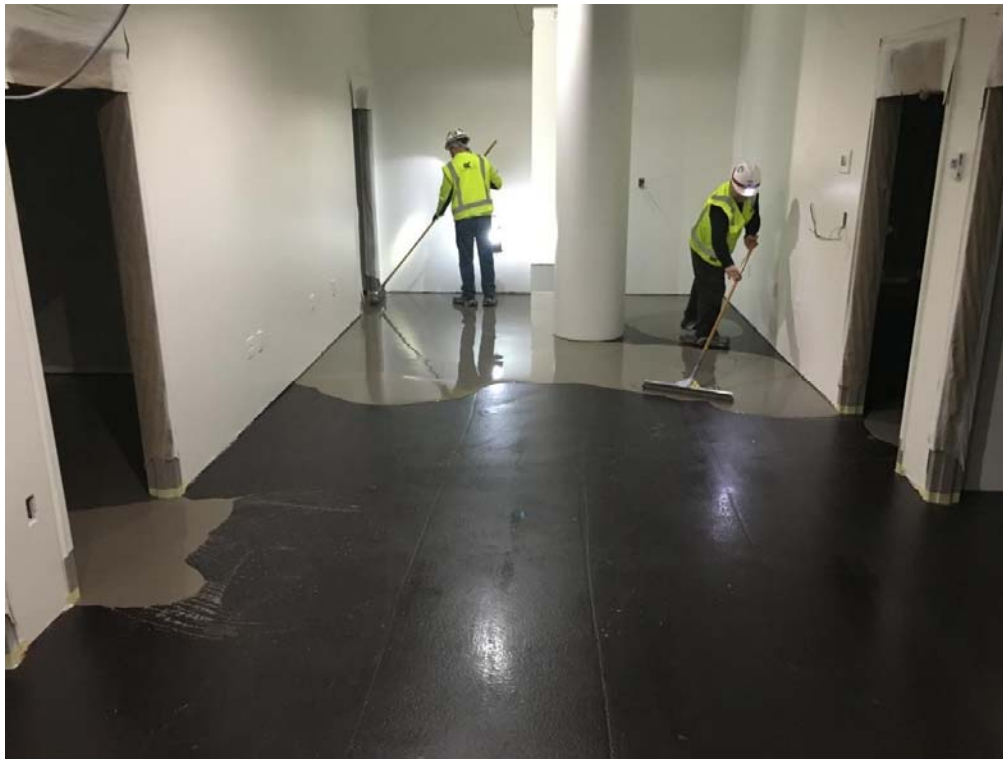
Resinous Coatings



Concrete Polishing



Floor Leveling & Moisture Mitigation



Floor Prep



Installer / Manufacturer Relationship

- People do business with people who help make them money



Concrete Preparation

- ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
- Mechanical prep only, shotblast whenever possible



Demo



Concrete Moisture Management

- ASTM F3010 – Standard practice for two-component resin based membrane-forming moisture mitigation systems for use under resilient floor coverings
- How to evaluate “alternate” moisture mitigation “propositions”

The Sales Cycle

- Identify opportunities
- Qualify opportunities
- Identify the decision maker(s)
- **Job site visit / quantify decision makers expectations**
- Install / paperwork
- Collect \$!
- **Mitigate liability exposure**

The Installer / Vendor Relationship

- Proven, time tested, reliable products
- LEADS!
- Willingness, ability to help if problems occur
- Product availability
- Job specific recommendations / jobsite visits
- Honesty / transparency
- UPSELL!

Limitations to Relationships

- Offering new products “just as good, but cheaper”
- Wasted time
- Demos
- Lack of honesty / transparency
- Exposing the contractor / stakeholders to excessive liabilities
- Upsell

ASTM F710

- Standard practice for preparing concrete floors to receive resilient flooring
- Defines; Sound, Solid, Clean, Dry



Guidelines

- ASTM
- ANSI
- ACI
- ISO
- ICRI CSP
- ICRI TECHNICAL GUIDELINE NO. 310.2R-2013 and others

Concrete Preparation

- No chemicals or fluids / mechanically prep only
- Remove existing adhesives / patches / etc. by grinding
- Shotblast whenever possible
- Exceed minimum prep requirements when possible
- Insufficient prep is the **#1** cause of floor failures

Must Shotblast

- Rained on
- Frozen
- Excessive carbonization – CO₂
- Surface damage
- Air entrained



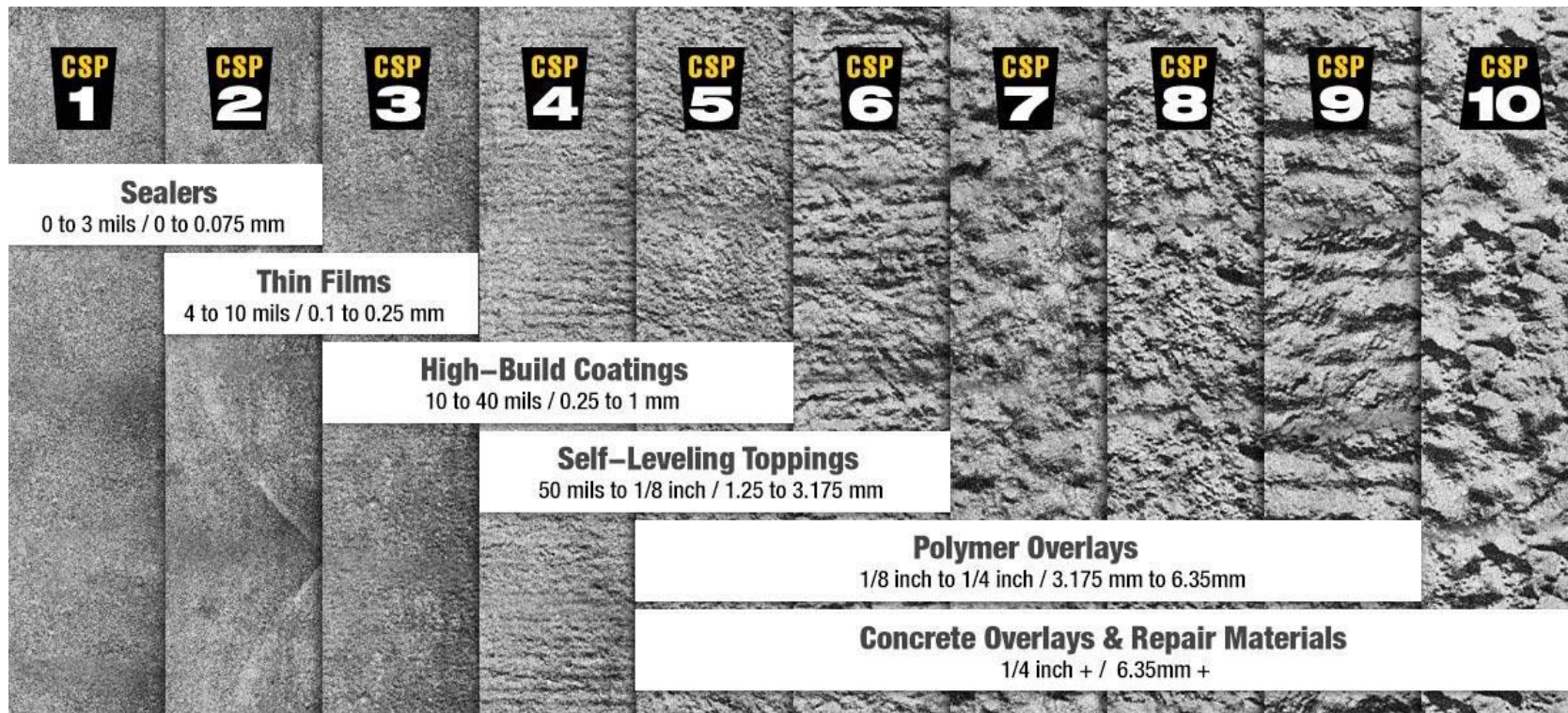
1 pass vs. 2
passes of
shotblasting on
air entrained
concrete

Special Cases - Pre Existing Issues With Concrete

- May not be obvious
- Quantitative testing not available
- ASR
- Osmotic blistering
- Chemical contamination



ICRI CSP



Porosity Versus Absorbency

Chemical Bond vs. Mechanical Bond

Cracks & Joints

- Control joints
- Construction joints
- Expansion joints
- Isolation joints



Best Practices for Crack & Joint Repair

Options for joint/crack repair material:

Flexible, Semi-Rigid, Rigid

Never install rigid coatings over flexible joint repair products

Best Practice? Rigid!

- Strongest bond
- Very low viscosity
- Quick cure – as little as 15 minutes
- Sand broadcast for adhesion



Best Insurance - Shotblast



Concrete Moisture Mitigation

- ASTM F710
- ASTM F3010 - Standard practice for two-component resin based membrane-forming moisture mitigation systems for use under resilient floor coverings
- Comply with product manufacturer's recommendation

Moisture Mitigation



Moisture Mitigation

- Assume issues when on grade , no vapor retarder
- Best practice is to install a system that will last the life of the slab
- Always install a leveler on top
- Be cautious of systems with no industry recommendation/standards
Adhesives, patches/levelers, primers/Single component products,
concrete additives/treatments, other membranes

Moisture Related Failures

- Investigate when there is a failure
- Inspect previous failures
- Multiple moisture testing methods

Meters, CaCl, mat test, probes, etc.

Flooring Failures Due to Moisture

- Condensation – can occur starting at about 85% RH
- Liquid water – means high alkalinity
- Test for pH
- How do non ASTM F3010 products react to water & pH?
 Not all ASTM F3010 products are equal
- RH vs. pH vs. liquid water
- Investigate warranty documents!
- Research for claims & problems!
- Comply with the flooring manufacturers recommendations!

Questions?

Bill Hall

Cell: 612-270-6581

Office: 763-755-1245

Email: Bill@qccomp.com



INTERNATIONAL CONCRETE REPAIR INSTITUTE
1000 WESTGATE DRIVE, SUITE 252
ST. PAUL, MINNESOTA 55114 USA
P: +1 651-366-6095 | E: INFO@ICRI.ORG | WWW.ICRI.ORG