

CTU Online Anytime Module 1.2 - Concrete Checklist

Key Takeaways

Slab Requirements

Refer to ANSI A108.01 – 3.2.1 Requirements for concrete masonry: preparation by other trades to confirm that a concrete slab is suitable for tile installation.

Slab Requirement Checklist

1. Cure Time – at 28 days, a large proportion of water has left concrete and installation can begin without moisture causing damage to flooring system
2. Sound and Stable – any substrate that does not appear sound and stable should be reported to the General Contractor.
3. Cracks – no structural cracking is acceptable. Some shrinkage cracking is permissible. Displaced or heaved concrete is structural in nature and should be addressed by a structural engineer. Additionally, cracks greater than 1/8" wide should be referred to appropriate party to have a structural engineer evaluate.
4. Contamination – No curing compounds, release agents or efflorescence on concrete slabs are acceptable before tiling. CUSTOM Technical Bulletin 92 explains what a curing compound is and why it can be a challenge during installations. A.C.I. defines a curing compound as a monomolecular film that forms over the bleed water from a freshly placed concrete slab. The challenge when bonding tile to curing compounds is that the film does not have a strong bond to the concrete. Before tiling, curing compounds need to be mechanically removed.
 - ASTM F3191 Porosity test can show if a curing compound is present on the substrate. A droplet of water beading up for sixty seconds or more may indicate the presence of a curing compound.
5. Clean, Hard and Dense
 - Clean – Free from curing compounds, adhesive residue, debris from other trades, dust and moisture
 - Dust is the number one bond breaker
 - Scrape, sweep, vacuum and then sponge to clean dust from substrate
 - Hard – Weak or chalky on surface (visual or light scraping can help determine)
 - Dense – Visual Observation (including ASTM F3191 droplet test)