

## Tile & Stone Installation Systems

# Substrate preparation for treated concrete

### Concrete with fly ash content

Before applying MAPEI products to concrete slabs containing 20% or more in fly ash content, a thorough evaluation is essential. Conduct a water-drop test to assess porosity, ensuring that the droplet not only wets the concrete but also dissipates swiftly on the surface. Guidance for this test can be found in ASTM F3191. In addition, perform a bond test to ensure compatibility. If satisfactory bonding is not achieved, mechanically abrade the slab and conduct additional bond tests.

### Concrete with silicate-based moisture-barrier admixtures

Concrete slabs treated with integral silicate-based moisture-barrier compounds, compatible with flooring system installations, should undergo the standard assessments that typical concrete substrates do. These assessments include moisture tests such as ASTM F1869 and ASTM F2170, along with a pH assessment per ASTM F710 requirements if required by the installation system. Also consider conducting a porosity check using ASTM F3191 based on the demands of the installation system.

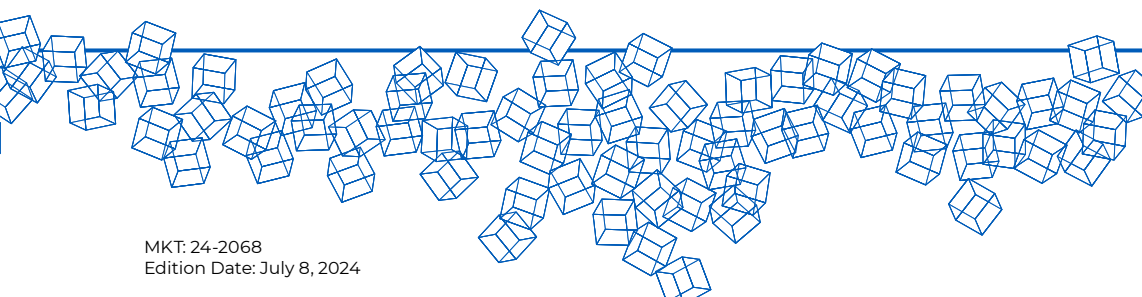
If assessment results do not meet the moisture or pH requirements of the installation system, moisture mediation is necessary to align the concrete surface with those specifications. Contact the admixture manufacturer's technical services department for compatibility details. The responsibility for moisture protection claims lies with the admixture manufacturer, unless a suitable MAPEI moisture remediation product is used. Any compatibility issues with concrete admixture components are the sole responsibility of the admixture manufacturer. Topically applied silicate-based moisture-vapor barriers must be mechanically removed before installation of any subsequent floor covering, regardless of type.

### Concrete with sealers or hardeners

Concrete slabs treated with topical sealers or hardeners require mechanical abrasion for complete removal. Confirm porosity with a water-drop test, ensuring rapid droplet dissipation into the surface. Refer to ASTM F3191 for guidance.

### Concrete with curing agents or compounds

Concrete slabs treated with liquid-applied topical curing agents or compounds necessitate mechanical abrasion for complete removal of the agent or compound. Verify porosity through a water-drop test, ensuring rapid droplet dissipation into the surface. Refer to ASTM F3191 for guidance.



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