



No Cold Joints or Shrinkage Cracking

Technical Report

Phoscrete delivers high-early and ultimate bond strengths to cured concrete.

In ONE HOUR, Phoscrete HC achieves >1,500 psi (10,3 MPa) bond strength.

After 28 days, Phoscrete reaches >2,500 psi (17,2 MPa) per ASTM C-882.

Phoscrete bonds to Phoscrete wet or cured.

In ONE HOUR, Phoscrete HC achieves >1,700 psi (10,3 MPa) bonded to Phoscrete.

After 28 days, the Phoscrete-Phoscrete bond reaches >3,000 psi (20,7 MPa).

No Cold Joints:

Common practice for installation of concrete repair materials is to fill the entire prepared site with cementitious or elastomeric repair material and then finish the surface, often struggling with slumping mortar on inclines. Because Phoscrete sets up fast, maintenance crews are trained to mix one to three buckets at once time and work their way across a repair, screeding and trowel finishing from the bottom of the slope, on up, often standing upon already-set Phoscrete while placing and finishing the remaining repair area.

Phoscrete's super-strong bond to itself allows repairs to continue hours or days later. If adjacent concrete spalls months or years later, instead of demolishing the entire original patch (common with conventional concrete repair materials), simply install additional Phoscrete.

Phoscrete does not shrink or crack.

In the lab, Phoscrete excels in both free and restrained shrinkage testing. In the field, Phoscrete does not experience shrinkage cracking. Upon initial set, Phoscrete expands slightly, and dry shrinkage is negligible thereafter. The US Army Corps of Engineers criteria for rapid spall repair is no cracking after 28 days per ASTM C-1581 (the Ring Test).

[Phoscrete did not crack after six months continuous testing.](#)

Please note that Phoscrete may experience reflective cracking (when the substrate is already cracked and the underlying cause is not mitigated). Further, Phoscrete may be subject to cracking due to load stresses when Phoscrete is bonded across two slabs (be sure to re-establish all control joints).

Independent, accredited laboratory test reports on Phoscrete concretes are available upon request.