



Rapid Return to Service

Technical Report

FHWA Minimum Strengths Recommended for Traffic Opening:

<https://www.fhwa.dot.gov/Pavement/concrete/full5.cfm> (See Section 5.9)

- Compressive strength of 2,000 psi (13,9 MPa)
- Modulus of rupture of 250 psi (2,1 MPa)

Phoscrete HC delivers high-early and ultimate compressive strengths.

In ONE HOUR, Phoscrete achieves >4,000 psi (27,6 MPa) compressive strength.

After 28 days, Phoscrete reaches >8,000 psi (55,2 MPa) per ASTM C-109.

Phoscrete HC meets the US Army Corps of Engineers criteria for large and small patch repair, small and large crater repair, including airfield pavements.

In ONE HOUR Phoscrete achieves >400 psi (2,8 MPa) flexural strength

[per ASTM C-78, simple beam modulus of rupture with third point loading]

At 7 days, Phoscrete achieves >600 psi (4,1 MPa) at 7 days (USACE requirement).

At 28 days, Phoscrete reaches flexural strength >700 psi (4,8 MPa) at 28 days

Expansion Joint Nosings and Sealants:

Common practice for repair and replacement of expansion joints involves two lane closures: first for demolition and installation of the nosing material, and once fully cured, a second lane closure for the site preparation and installation of the joint sealant (often requiring sandblasting of the nosing material). [Expansion joint nosings and headers installed using Phoscrete HC accept silicone and epoxy joint sealants ONE HOUR after initial set with no sandblasting of the interface required.](#)

Pavements, Bridge and Parking Decks, Commercial Floor Coatings and Overlays:

Before coatings can be applied to new and repaired concrete surfaces, to insure a permanent bond, water-activated cementitious materials require dry-out that can take hours or days. [Phoscrete patches broken concrete surfaces and accepts epoxy, urethane, methacrylate, and silane coatings ONE HOUR after initial set.](#)

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