

### TECHNICAL DATA

**DESCRIPTION:** U.S. Thin Patch V/O 103 is a lightweight, polymer modified, portland cement-based repair mortar mix, containing an integral corrosion inhibitor and dry polymer for added tensile, bond and flexural strengths. U.S. Thin Patch V/O 103 is ready-to-use, requiring only jobsite addition of potable water.

**USE ON:** Bridges, tunnels, balconies, parking decks, manholes, sewers, piers, bulkheads, elevated concrete slabs and slabs on grade

- ADVANTAGES:**
- Lightweight characteristics
  - High build in a single lift
  - High bond strength
  - Excellent freeze thaw resistance
  - Easy mixing and placement
  - Shrinkage compensated
  - Excellent finishing characteristics

	1 DAY	7 DAYS	28 DAYS
Compressive Strength (ASTM C 109 Modified)	2000 psi (13.7 MPa)	4000 psi (27.4 MPa)	5000 psi (34.2 MPa)
Bond Strength (ASTM C 882 Modified)		1000 psi (6.8 MPa)	2500 psi (17.1 MPa)
Flexural Strength (ASTM C 348)		1200 psi (8.2 MPa)	1800 psi (12.3 MPa)
Freeze Thaw Cycle (ASTM C 666)	99.2% @ 300 cycles		
Unit Weight	103 lbs/ft <sup>3</sup>		

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- PREPARATION:** Remove all dirt, grease, oil, laitance and curing compounds from concrete, mortar and stone by sandblasting or mechanical roughening. On metals, remove grease, oil, rust and mill scale by sandblasting or wire brushing.
- MIXING:** Pour 100 fluid oz. of water in pail or mortar mixer. In pail, mix with a slow speed drill, while adding 50 lbs. Of US Thin Patch V/O 103 powder slowly to avoid lumps. (Do not mix more than three minutes). An additional 28 ounces of water may be added to achieve a workable consistency. Should small quantities be required, be sure to proportion water accordingly. Masonry surfaces or other absorbent surfaces should be dampened but free of standing water.
- APPLICATION:** Be sure mortar is mixed thoroughly to a uniform consistency. Trowel US Thin Patch V/O in prepared area and allow mortar to stiffen, then produce desired finish by using float or rubber gloves, forcing mortar in voids. If steel trowel finish is required, wet trowel with water. Protect from wind and heat for the first 24 hours.
- If no primer is used, dampen masonry surface to which US Thin Patch V/O 103 is applied. On a large project, the use of a good curing compound, meeting ASTM C 309, Type I, will prevent loss of moisture and produce good, durable mortar. Apply at a thickness of 1/4" to 3".
- LIMITATIONS:** US Thin Patch V/O 103 should be used when ambient temperatures are 40°F (4°C) and rising. Lower temperatures produce a slower set; higher temperatures produce a faster set. For temperatures below 40°F (4°C) consult with the manufacturer for special cold weather placement provisions which include but are not limited to conditioning of the materials, use of heated mix water and thermal protection. In hot weather use chilled water for mixing.
- PACKAGING:** US Thin Patch V/O 103 is packaged in 50 lb multi-wall poly lined bags. This product yield is approximately .42 ft<sup>3</sup>.

**CAUTION:** WARNING! CONTAINS FREE SILICA & PORTLAND CEMENT. DO NOT BREATHE DUST. May cause delayed lung injury (silicosis). Follow OSHA safety and health standards for crystalline silica (quartz). Cement powder or freshly mixed concrete grout or mortar may cause skin injury. Avoid contact with skin and wash exposed skin areas promptly with water. If any cement powder or mixture gets into the eyes, rinse immediately and repeatedly with water and get prompt medical attention.