PROSPEC®

HORIZONTAL REPAIR SELECTION GUIDE

TCC MATERIALS
SPEC BLENDED CONSTRUCTION PRODUCTS®

	CONCRETE PATCHING MIX (3U18)	CONCRETE PATCHING MIX AE (3U58M)	METRO MIX 240	METRO MIX 240 AE	RAPID PATCH® HORIZONTAL REPAIR	RAPID PATCH® COMMERCIAL DOT REPAIR
						
ADVANTAGES/USES	• Durable, Portland cement-based repair mix for concrete pavement, industrial floors, and structural concrete • Can be mixed with Air-Entraining Admixture • Produced in accordance with MNDOT inspection program • Commercial use	• Durable, air-entrained, Portland cement-based repair mix for concrete pavement, industrial floors, and structural concrete • Can be mixed with Fast-Set Liquid Activator for 4-5 hr. open to traffic • Commercial use	• High-performance, super plasticized, Portland cement-based engineered concrete mix for small structural projects or when ready-mix truck access is restricted • Pumpable • Commercial use	• High-performance, super plasticized, Portland cement-based engineered concrete mix for small structural projects or when ready-mix truck access is restricted • Pumpable • Air-entrained for freeze-thaw durability	• High-strength, fast-setting, low shrinkage, Portland cement-based concrete patching mix • Suitable for DOT horizontal concrete repairs • Can be extended with ⅜" minus aggregate (up to 25 lb. pea gravel per 50 lb. Horizontal Repair Mix) • Commercial use	• High-strength, fast-setting, low shrinkage, hydraulic cement mortar for concrete repair and overlays • Suitable for DOT horizontal concrete repairs • Can be extended with ⅜" minus aggregate (up to 30 lb. pea gravel per 50 lb. Commercial DOT Repair Mix) • Commercial use
APPLICATION						
Thickness	Min 1½" Full depth maximum	Min 1½" Full depth maximum	Min 1½" Full depth maximum	Min 1½" Full depth maximum	Min ½" Max 1" neat Full depth extended	Min ½" Max 2" neat Full depth extended
Initial Set Time @ 70°F	~ 3:00 (hr:min)	4:15-4:45 (hr:min)	~ 6:00 (hr:min)	~ 4:00 (hr:min)	0:33 (hr:min)	0:15 (hr:min)
Final Set Time @ 70°F	~ 4:40 (hr:min)	5:15-5:45 (hr:min)	~ 8:00 (hr:min)	~ 5:30 (hr:min)	1:08 (hr:min)	0:18 (hr:min)
Pot Life @ 70°F	1 hr	1 hr	1 hr	1 hr	20-30 min	10 min
Open to Traffic	6-8 hr (foot) 24 hr (wheel)	6-8 hr (foot) 24 hr (wheel)	6-8 hr (foot) 24 hr (wheel)	6-8 hr (foot) 24 hr (wheel)	2 hr (foot) 8 hr (wheel)	20 min (foot) 3 hr (wheel)
Temperature Use Range	50°F-90°F	50°F-80°F	50°F-100°F	50°F-100°F	50°F-90°F	20°F-90°F
Industry Standards	Meets or exceeds ASTM C387 Meets MN DOT specification 3105 for Grade 3U18	Meets or exceeds ASTM C387 Meets MN DOT specification 3105 for Grade 3U18	Meets or exceeds ASTM C387	Meets or exceeds ASTM C387	Meets or exceeds ASTM C928-R2	Meets or exceeds ASTM C928-R3
Enhancements	Low-slump mix design	Plasticized Air-Entrained	Plasticized Corrosion inhibitors	Plasticized Corrosion inhibitors Air-entrained	High early strength Excellent freeze/thaw and salt resistance	Polymer-modified Non-corrosive
Compressive Strength	>4,000 psi (24 hr.) >7,500 psi (28 day)	>4,000 psi (24 hr.) >8,000 psi (28 day)	>3,500 psi (24 hr.) >9,000 psi (28 day)	>5,000 psi (24 hr.) >8,500 psi (28 day	>1,500 psi (3 hr) >5,790 psi (28 day)	4,000 psi (3 hr.) 10,000 psi (28 day
Suitable Substrates (Refer to Data Sheet for restrictions and notes)	Concrete (repairs), or full depth with forms	Concrete (repairs), or full depth with forms	Concrete (repairs), or full depth with forms	Concrete (repairs), or full depth with forms	Concrete	Concrete
Color	Gray	Gray	Gray	Gray	Gray	Gray

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	PARTIAL DEPTH CONCRETE PATCH 2:1	PARTIAL DEPTH CONCRETE PATCH 2.5:1	PARTIAL DEPTH CONCRETE PATCH 3:1	CONCRETE RESURFACER	POURABLE CONCRETE PATCH	VINYL CONCRETE PATCH
						
ADVANTAGES/USES	• Durable, Portland cement-based partial depth overlay repair mix for concrete pavement, industrial floors, structural concrete, and filling masonry block cores • 2 parts fine sand:1 part Portland cement • Commercial use	• Durable, Portland cement-based partial depth overlay repair mix for concrete pavement, industrial floors, structural concrete, and filling masonry block cores • 2.5 parts fine sand:1 part Portland cement • Commercial use	• Durable, Portland cement-based partial depth overlay repair mix for concrete pavement, industrial floors, structural concrete, paver bonding and grouting • Mix with Mighty Bond additive • 3 parts fine sand:1 part Portland cement • Commercial use	• Fast-setting, high-performance, Portland cement-based concrete resurfacing and patching mix • Less expensive alternative to concrete replacement • Can be pigmented • No primer needed • Horizontal and vertical • Commercial use	• Portland cement-based, flowable, squeegee-grade, resurfacing and patching mix • Underlayment for new flooring materials • Wear surface in residential and light duty commercial applications	• Portland cement-based, high-strength patching mix • Repair minor concrete surface imperfections and general purpose patching • Polymer-modified • Excellent resistance to deicing salts • Horizontal and vertical application • Commercial use
APPLICATION						
Thickness	Min ½” Max 2”	Min ½” Max 2”	Min ½” Max 2” neat	Feather edge minimum Max ½” per layer	Min ⅛” Max ½”	Feather edge minimum Max 2” per layer
Initial Set Time @ 70°F	< 0:30 (hr:min)	< 0:30 (hr:min)	< 0:30 (hr:min)	0:10-0:15 (hr:min)	2:00 (hr:min)	0:30 (hr:min)
Final Set Time @ 70°F	> 6:00 (hr:min)	> 6:00 (hr:min)	> 6:00 (hr:min)	1:30-2:00 (hr:min)	5:15 (hr:min)	1:00 (hr:min)
Pot Life @ 70°F	1 hr	1 hr	1 hr	1 hr	20-30 min	10 min
Open to Traffic	6-8 hr (foot) 1 day (wheel)	6-8 hr (foot) 2 day (wheel)	6-8 hr (foot-overlay) 3 day (wheel-overlay)	2 hr (foot) 8 hr (rubber wheel)	6-8 hr (foot) 24 hr (wheel)	8-12 hr (foot) 48 hour (wheel)
Temperature Use Range	50°F-90°F	50°F-90°F	50°F-90°F	50°F-90°F	50°F-90°F	50°F-90°F
Industry Standards	Meets or exceeds ASTM C387	Meets or exceeds ASTM C387	Meets or exceeds ASTM C387	Meets or exceeds ASTM C387	Meets or exceeds ASTM C387	Meets or exceeds ASTM C387
Enhancements	High-early and normal strength, no pea gravel	High-early and normal strength, no pea gravel	High-early and normal strength, no pea gravel	Polymer-modified Corrosion inhibitor	Polymer-modified	Polymer-modified
Compressive Strength	>3,000 psi (24 hr.) >7,000 psi (28 day)	>2,200 psi (24 hr.) >5,500 psi (28 day)	>1,800 psi (24 hr.) >4,500 psi (28 day)	>2,400 psi (24 hr.) >5,000 psi (28 day)	>2,000 psi (3 day) >3,500 psi (28 day	>4,000 psi (24 hr.) >7,000 psi (28 day
Suitable Substrates (Refer to Data Sheet for restrictions and notes)	Concrete (repairs), or full depth with forms	Concrete (repairs), or full depth with forms	Concrete (repairs), or full depth with forms	Concrete (repairs), or full depth with forms	Concrete	Concrete
Color	Gray	Gray	Gray	Gray	Gray	Gray

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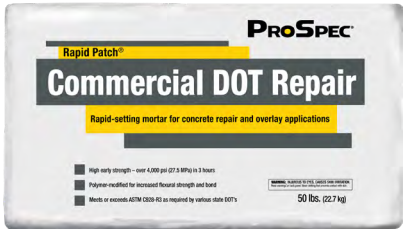
	RAPID PATCH COMMERCIAL DOT REPAIR EXTENDED	PREMIUM PATCH 100	PREMIUM PATCH 200	RAPID PATCH SELF-LEVELING RESURFACER
				
ADVANTAGES/USES	• Designed for concrete repair and overlay applications requiring high durability. • Increased flexural stregnth and adhesion • Improves impact and tensile strengths • Contains no chlorides or magnesium phosphates • Compatible with Portland cement • Suitable for DOT horizontal concrete repairs • Cement based, non-corrosive • Non-chemical concrete • Commercial use	• A fast-setting, fiber-reinforced high strength, cement-based repair mortar designed for applications where high early strength is needed • Improves impact, flexural and tensile strengths • Contains corrosion inhibitor • No chlorides or magnesium phosphates • Compatible with Portland cement • Suitable for DOT horizontal repairs • Commercial use	• A rapid-setting, fiber reinforced, high-strength, polymer-modified cement designed for concrete repair and overlay applications requiring high durability. • No bonding agent needed • Alkai resistant fibers • Corrosion inhibitor • No chlorides or magnesium phosphates • Compatible with Portland cement • Suitable for DOT horizontal concrete • Commercial use	• Cement based product for resurfacing concrete floors with damaged finishes or as a wear surface • Provides smooth, hard, flat surface • Underlayment or wear surface • Accepts foot traffic in 6 hours
APPLICATION				
Thickness	Apply 2-24m to 2-24in.	Apply 1/2in. to 2in. (13-51mm)	Apply 1/2in. to 2in. (13-51mm)	Feather edge to 2in (51mm) thick
Initial Set Time @ 70°F	0:15-0:18 (hr:min)	0:37 (hr:min)	0:18 (hr:min)	Varies
Final Set Time @ 70°F	0:18-0:22 (hr:min)	0:46 (hr:min)	0:20 (hr:min)	01:15-01:30 (hr:min)
Pot Life @ 70°F	0:15 (hr:min)	0:30 (hr:min)	15 min	15 min
Open to Light Traffic	3:00-4:00 (hr:min)	3:00-4:00 (hr:min)	3:00-4:00 (hr:min)	4:00-6:00 (hr:min)
Temperature Use Range	20°F-100°F	40°F-80°F	40°F-80°F	40°F-90°F
Industry Standards	ASTM 928 R3	ASTM C 928	ASTM C 928	ASTM C109, ASTM C348
Enhancements	Corrosion inhibitor	Corrosion inhibitor	Fiber reinforced, corrosion inhibitor	Self-drying technology
Compressive Strength	N/A	Varies. See data sheet.	Varies. See data sheet.	Varies. See data sheet.
Suitable Substrates (Refer to Data Sheet for restrictions and notes)	Can be used for highway repairs, overlays, bridge decks, parking structures, airport runways, taxiways and freezer rooms	Can be used to repair heavy duty surfaces such as highways, overlays, bridge decks, parking structures, airport runways, freezer rooms, industrial warehouses, loading docks and wastewater treament facilities	Can be used on highway bridge parapets, structure supports, parking garages, silos and building walls. Used to waterproof swimming pools, cisterns and water resovoirs	Can be used to level prepared horizontal surfaces including new concrete slabs, damaged concrete floors and plywood
Color	Gray	Gray	Gray	Gray

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