

CONCRETE PATCHING MIX

## HORIZONTAL REPAIR SELECTION GUIDE



**RAPID PATCH®** 

	CUNCRETE PATCHING MIX (3U18)	CONCRETE PATCHING MIX AE (3U58M)	METRO MIX	METRO MIX AE	RAPID PATCH®  COMMERCIAL DOT REPAIR
ES/USES	Concrete Patching	Concrete Patithing	TENON  Midra Min	IMAGE COMING SOON	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, hydraulic cement mortar for concrete repair and overlays  Suitable for DOT horizontal concrete repairs  Can be extended with %" 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 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)	0:15 (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)	0:18 (hr:min)
Pot Life @ 70°F	1 hr	1 hr	1 hr	1 hr	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)	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	20°F-90°F
Industry Standards	Meets or exceeds ASTM C387 Meets MnDOT 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-R3
Enhancements	Low-slump mix design	Plasticized Air-Entrained	Plasticized Corrosion inhibitors	Plasticized Corrosion inhibitors Air-entrained	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	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



## HORIZONTAL REPAIR SELECTION GUIDE



	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
ES/USES	IMAGE COMING SOON	IMAGE COMING SOON	IMAGE COMING SOON	TENON Concrete Resertacte	Piorable Concerts Patch	TENON Virgi Concrete Petch
ADVANTAGES/USES	Durable, Portland cement-based partial depth overlay repair mix for concrete pavement, industrial floors, structural concrete, and filling masonry block cores 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	<ul> <li>Portland cement-based, flowable, squeegee-grade, resurfacing and patching mix</li> <li>Underlayment for new flooring materials</li> <li>Wear surface in residential and light duty commercial applications</li> </ul>	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 1/8" Max 1/2"	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)	6-8 hr (foot-overlay)	2 hr (foot)	6-8 hr (foot)	8-12 hr (foot)
	r day (Wilcon)	2 day (wheel)	3 day (wheel-overlay)	8 hr (rubber wheel)	24 hr (wheel)	48 hour (wheel)
Temperature Use Range	50°F-90°F	2 day (wheel) 50°F-90°F	3 day (wheel-overlay) 50°F-90°F	` '		· · ·
Temperature Use Range Industry Standards				8 hr (rubber wheel)	24 hr (wheel)	48 hour (wheel)
	50°F-90°F	50°F-90°F	50°F-90°F	8 hr (rubber wheel) 50°F-90°F	24 hr (wheel) 50°F-90°F	48 hour (wheel) 50°F-90°F
Industry Standards	50°F-90°F  Meets or exceeds ASTM C387  High-early and normal strength, no	50°F-90°F  Meets or exceeds ASTM C387  High-early and normal strength, no	50°F-90°F  Meets or exceeds ASTM C387  High-early and normal strength, no	8 hr (rubber wheel) 50°F-90°F  Meets or exceeds ASTM C387  Polymer-modified	24 hr (wheel) 50°F-90°F Meets or exceeds ASTM C387	48 hour (wheel) 50°F-90°F  Meets or exceeds ASTM C387
Industry Standards  Enhancements	50°F-90°F  Meets or exceeds ASTM C387  High-early and normal strength, no pea gravel  >3,000 psi (24 hr.)	50°F-90°F  Meets or exceeds ASTM C387  High-early and normal strength, no pea gravel  >2,200 psi (24 hr.)	50°F-90°F  Meets or exceeds ASTM C387  High-early and normal strength, no pea gravel  >1,800 psi (24 hr.)	8 hr (rubber wheel) 50°F-90°F  Meets or exceeds ASTM C387  Polymer-modified Corrosion inhibitor  >2,400 psi (24 hr.)	24 hr (wheel) 50°F-90°F  Meets or exceeds ASTM C387  Polymer-modified  >2,000 psi (3 day)	48 hour (wheel) 50°F-90°F  Meets or exceeds ASTM C387  Polymer-modified  >4,000 psi (24 hr.)
Industry Standards  Enhancements  Compressive Strength  Suitable Substrates (Refer to Data Sheet for	50°F-90°F  Meets or exceeds ASTM C387  High-early and normal strength, no pea gravel  >3,000 psi (24 hr.) >7,000 psi (28 day)  Concrete (repairs), or full depth with	50°F-90°F  Meets or exceeds ASTM C387  High-early and normal strength, no pea gravel  >2,200 psi (24 hr.) >5,500 psi (28 day)  Concrete (repairs), or full depth with	50°F-90°F  Meets or exceeds ASTM C387  High-early and normal strength, no pea gravel  >1,800 psi (24 hr.) >4,500 psi (28 day)  Concrete (repairs), or full depth with	8 hr (rubber wheel) 50°F-90°F  Meets or exceeds ASTM C387  Polymer-modified Corrosion inhibitor  >2,400 psi (24 hr.) >5,000 psi (28 day)  Concrete (repairs), or full depth with	24 hr (wheel) 50°F-90°F  Meets or exceeds ASTM C387  Polymer-modified  >2,000 psi (3 day) >3,500 psi (28 day	48 hour (wheel) 50°F-90°F  Meets or exceeds ASTM C387  Polymer-modified  >4,000 psi (24 hr.) >7,000 psi (28 day



## HORIZONTAL REPAIR SELECTION GUIDE



	RAPID PATCH COMMERCIAL DOT REPAIR EXTENDED	RAPID PATCH® 100	RAPID PATCH® 200	RAPID PATCH® SELF-LEVELING Resurfacer
S/USES	Commercial DOT Repair	IMAGE COMING SOON	IMAGE COMING SOON	Self-Leeting Resertator
ADVANTAGES/USES	<ul> <li>Designed for concrete repair and overlay applications requiring high durability.</li> <li>Increased flexural strength and adhesion</li> <li>Improves impact and tensile strengths</li> <li>Contains no chlorides or magnesium phosphates</li> <li>Compatible with Portland cement</li> <li>Suitable for DOT horizontal concrete repairs</li> <li>Cement based, non-corrosive</li> <li>Non-chemical concrete</li> <li>Commercial use</li> </ul>	<ul> <li>A fast-setting, fiber-reinforced high strength, cement-based repair mortar designed for applications where high early strength is needed</li> <li>Improves impact, flexural and tensile strengths</li> <li>Contains corrosion inhibitor</li> <li>No chlorides or magnesium phosphates</li> <li>Compatible with Portland cement</li> <li>Suitable for DOT horizontal repairs</li> <li>Commercial use</li> </ul>	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
	Apply 2-24m to 2-24in. 0:15-0:18 (hr:min)	Apply 1/2in. to 2in. (13-51mm) 0:37 (hr:min)	Apply 1/2in. to 2in. (13-51mm) 0:18 (hr:min)	
Initial Set Time @ 70°F		, , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , ,	2in (51mm) thick
Initial Set Time @ 70°F	0:15-0:18 (hr:min)	0:37 (hr:min)	0:18 (hr:min)	2in (51mm) thick Varies
Initial Set Time @ 70°F Final Set Time @ 70°F	0:15-0:18 (hr:min) 0:18-0:22 (hr:min)	0:37 (hr:min) 0:46 (hr:min)	0:18 (hr:min) 0:20 (hr:min)	2in (51mm) thick  Varies  01:15-01:30 (hr:min)
Initial Set Time @ 70°F Final Set Time @ 70°F Pot Life @ 70°F Open to Light Traffic	0:15-0:18 (hr:min) 0:18-0:22 (hr:min) 0:15 (hr:min)	0:37 (hr:min) 0:46 (hr:min) 0:30 (hr:min)	0:18 (hr:min) 0:20 (hr:min) 15 min	2in (51mm) thick  Varies  01:15-01:30 (hr:min)  15 min
Initial Set Time @ 70°F Final Set Time @ 70°F Pot Life @ 70°F Open to Light Traffic	0:15-0:18 (hr:min) 0:18-0:22 (hr:min) 0:15 (hr:min) 3:00-4:00 (hr:min)	0:37 (hr:min) 0:46 (hr:min) 0:30 (hr:min) 3:00-4:00 (hr:min)	0:18 (hr:min) 0:20 (hr:min) 15 min 3:00-4:00 (hr:min)	2in (51mm) thick  Varies  01:15-01:30 (hr:min)  15 min  4:00-6:00 (hr:min)
Initial Set Time @ 70°F Final Set Time @ 70°F Pot Life @ 70°F Open to Light Traffic Temperature Use Range	0:15-0:18 (hr:min) 0:18-0:22 (hr:min) 0:15 (hr:min) 3:00-4:00 (hr:min) 20°F-100°F	0:37 (hr:min) 0:46 (hr:min) 0:30 (hr:min) 3:00-4:00 (hr:min) 40°F-80°F	0:18 (hr:min) 0:20 (hr:min) 15 min 3:00-4:00 (hr:min) 40°F-80°F	2in (51mm) thick  Varies  01:15-01:30 (hr:min)  15 min  4:00-6:00 (hr:min)  40°F-90°F
Initial Set Time @ 70°F Final Set Time @ 70°F Pot Life @ 70°F Open to Light Traffic Temperature Use Range Industry Standards	0:15-0:18 (hr:min) 0:18-0:22 (hr:min) 0:15 (hr:min) 3:00-4:00 (hr:min) 20°F-100°F ASTM 928 R3	0:37 (hr:min) 0:46 (hr:min) 0:30 (hr:min) 3:00-4:00 (hr:min) 40°F-80°F ASTM C 928	0:18 (hr:min) 0:20 (hr:min) 15 min 3:00-4:00 (hr:min) 40°F-80°F ASTM C 928	2in (51mm) thick  Varies  01:15-01:30 (hr:min)  15 min  4:00-6:00 (hr:min)  40°F-90°F  ASTM C109, ASTM C348
Initial Set Time @ 70°F Final Set Time @ 70°F Pot Life @ 70°F Open to Light Traffic Temperature Use Range Industry Standards Enhancements	0:15-0:18 (hr:min) 0:18-0:22 (hr:min) 0:15 (hr:min) 3:00-4:00 (hr:min) 20°F-100°F ASTM 928 R3 Corrosion inhibitor	0:37 (hr:min) 0:46 (hr:min) 0:30 (hr:min) 3:00-4:00 (hr:min) 40°F-80°F ASTM C 928 Corrosion inhibitor	0:18 (hr:min) 0:20 (hr:min) 15 min 3:00-4:00 (hr:min) 40°F-80°F ASTM C 928 Fiber reinforced, corrosion inhibitor	2in (51mm) thick  Varies  01:15-01:30 (hr:min)  15 min  4:00-6:00 (hr:min)  40°F-90°F  ASTM C109, ASTM C348  Self-drying technology

For Technical Product Data, Industry Standards, and Material Safety Data Sheets on all of the Tenon™ products, please visit our website at www.tccmaterials.com