



**A GREEN CONSTRUCTION PRODUCT!**  
 For Information on CERATECH'S GREEN Material Science Technology, Go To: [www.ceratechinc.com](http://www.ceratechinc.com)

# The Industry's Highest Performance Green Sustainable Rapid Setting Repair Concrete

**Mainline™** is an extremely versatile, cementitious, rapid setting, semi-leveling structural repair concrete. It is a single component powder that is water activated. **Mainline™** has 45 - 60 minutes of working time and will reach compressive strengths of more than 2,000 psi within 4 hours from the addition of water. **Mainline™** can be applied in ambient temperature ranges from 30 to 120 degrees Fahrenheit. **Mainline™** finishes like traditional Portland based concrete and cleans up easily with water. **Mainline™** rapid repair concrete offers all of the performance and ease of use characteristics associated with CERATECH's **Pavement™** High Performance Repair Products, in a low cost, turn-key, aggregate extended package.

**RECOMMENDED USES:** **Mainline™** has been designed for horizontal applications providing for **low cost structural repair** of building restoration/balcony projects, loading dock ramps, parking garages, and form and pour projects.

- Utilizes Over 90% Re-Cycled Materials
- 4 Hour Return To Service
- Water Mix & Clean-up
- Pre-Extended
- Exceptional Bond & Flexural Strengths
- 45 - 60 Minutes of Work Time
- Applicable from 30 to 120°F



67 lb. Bag / 0.46 cu.ft. yield

6/7/07



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# MAINLINE™

## RAPID REPAIR CONCRETE

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**UNIT WEIGHT** (with water, sand & aggregate)  
152 lb/ft<sup>3</sup> (2434 kg/m<sup>3</sup>)

**SETTING TIME**  
Set Times at 72°F/22°C at 2" (5 cm)  
material depth  
Initial set: 35 - 45 minutes  
Final set: 45 - 60 minutes

**VOLUME YIELD** (#8 - 3/8" fractured stone- included)  
Concrete (binder + sand + coarse agg. + H<sub>2</sub>O) =  
**0.46ft<sup>3</sup>** (.013m<sup>3</sup>)

**PACKAGING**  
67lb (30.4 kg) Bag

**SHELF LIFE**  
1 year

**STORAGE**  
Bags must be kept dry

- |   |  |
|---|--|
| <b>1</b> Rapid Strength Development                         | Rapid Return to Service  |
| <b>2</b> Non-shrink   | Dimensionally Stable   |
| <b>3</b> Mild Modulus of Elasticity                         | Exceptional Volume Stability Over Wide Temperature Ranges Reducing Stress at Bond Interface    |
| <b>4</b> Low Coefficient of Thermal Expansion / Contraction | Dimensionally Stable in Wide Temperature Ranges for Long Term Durability of Repair             |
| <b>5</b> Exceptional Early Bond Strengths                   | Durable Repairs  |
| <b>6</b> High Early Flexural Strengths                      | Exceptional Load Transfer  |
| <b>7</b> Self Priming                                       | No Bonding Agents  |
| <b>8</b> Self Curing  | No Moist Curing, Tenting or Blanketing   |
| <b>9</b> Water Clean-Up                                     | No Hazardous Chemicals Required for Cleaning Tools   |
| <b>10</b> Wide Temperature Applications                     | Can Be Applied in Extreme Temperatures Without Effecting Long Term Performance Characteristics |
| <b>11</b> Pre-extended                                      | Utilizes high quality aggregates for improved strengths  |

## TECHNICAL DATA

Results provided by licensed engineering test laboratory and represent typical results from production materials. Actual results may vary from third party testing results; however, CERATECH's materials meet and/or exceed established internal quality control standards, (available upon request) . All samples were air cured.

Property	Results 4 in. x 8 in. cylinders	Test Method
<b>Compressive Strengths, psi (MPa)</b>		
4 hours	2080 (14.3)	ASTM C 39
1 day - 24 hours	3860 (26.6)	ASTM C 39
7 days	6215 (42.8)	ASTM C 39
28 days	9300 (64.1)	ASTM C 39
<b>Flexural Strength, psi (MPa)</b>		
7 days	855 (5.9)	ASTM C 78
28 days	1008 (6.9)	ASTM C 78
<b>Splitting Tensile Strength, psi (MPa)</b>		
7 days	490 (3.4)	ASTM C 496
28 days	720 (5.0)	ASTM C 496
<b>Bond Strength, psi (MPa)</b>		
1 day - 24 hours	2274 (15.7)	ASTM C 882
7 days	3295 (22.7)	ASTM C 882
<b>Rapid Freeze Thaw Resistance</b> (Durability Factor - Retained percentage of Dynamic Modulus)		
300 cycles	100%	ASTM C 666A
<b>Scaling Resistance, lbs/ft<sup>2</sup> (kg/m<sup>2</sup>)</b>		
50 cycles	0	ASTM C 672
<b>Modulus of Elasticity, psi (GPa)</b>		
28 days	4.25 (2.9)	ASTM C 469
<b>Coefficient of Thermal Expansion, in/in/°F</b>		
28 days	4.7	AASHTO TP 60
<b>Length Change, % of total length</b>		
28 days soak / 28 days dry	0.0230/-0.0430	ASTM C 157



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