



**Description:** The Atlantic Track Crane Runway System (CRS) Epoxy Grout is a high strength, three component, 100 % solids, VOC free, epoxy resin system designed specifically for supporting Crane Rail on Concrete Crane Runway Systems. It is a self-leveling, Low Exotherm epoxy grout that exhibits excellent flow characteristics and realizes rapid strength development. Atlantic Track CRS Grout is designed to support crane runway and other material handling systems that are subject to impact, vibration, shock and high duty cycles.



<b>Handling Properties:</b>	<b>MAXIMUM DEPTH OF POUR, in. (cm)</b>	<b>8 (20.3)</b>		
	<b>WORKING TIME, min</b>	<b>45</b>		
	<b>GEL TIME</b>			<b>ASTM D 2471</b>
	@ 50 °F (10 °C)	8-10h		
	@ 72 °F (22 °C)	90 min		
	@ 90 °F (32 °C)	60 min		
		<b>Standard</b>	<b>High Flow</b>	
	<b>PEAK EXOTHERM (1 lb or 454g mass), °F (°C)</b>	<b>82 (28)</b>	<b>88 (31)</b>	<b>ASTM D 2471</b>
	<b>SPECIFIC GRAVITY, g/cm<sup>3</sup></b>	<b>2.19</b>	<b>2.14</b>	<b>ASTM D 792</b>
<b>Physical Properties:</b>		<b>Standard (5 Bag)</b>	<b>High Flow (4 Bag)</b>	
	<b>COMPRESSIVE STRENGTH, psi (MPa)</b>			<b>ASTM C 579</b>
	1 day	14,500 (100)	14,570 (101)	
	3days	15,300 (106)	16,530 (114)	
	7days	15,900 (110)	16,860 (116)	
	28 days	16,200 (112)	17,340 (120)	
	<b>TENSILE STRENGTH, psi (MPa)</b>	2,077 (14.32)	2,096 (14.21)	<b>ASTM C 307</b>
	<b>FLEXURAL STRENGTH, psi (MPa)</b>	5,390 (36.79)	5,405 (37.67)	<b>ASTM C 580</b>
	<b>FLEXURAL MODULUS</b>	3.4 X 10 <sup>6</sup> PSI	3.2 X 10 <sup>6</sup> PSI	<b>ASTM C 580</b>
	<b>HEAT DISTORTION TEMPERATURE, °F (°C)</b>	136 (58)	136 (58)	<b>ASTM D 648</b>
	<b>MAX CONTINUOUS SERVICE TEMPERATURE, °F (°C)</b> (for non load-bearing applications)	250 (121)	250 (121)	
	<b>COEFFICIENT OF THERMAL EXPANSION, 10<sup>-6</sup> /°F</b>	16.6	16.1	<b>ASTM C 531</b>
	<b>EARLY-AGE HEIGHT CHANGE, %</b>	1.02	3.66	<b>ASTM C 827</b>
	<b>EFFECTIVE BEARING AREA, %</b>	≥95	≥95	<b>ASTM C 1339</b>
	<b>CREEP</b>			<b>ASTM C 1181</b>
@400 psi, @70 °F), in./in. or cm/cm	0.74 x 10 <sup>-3</sup>	0.50 x 10 <sup>-3</sup>		
@400 psi, @140 °F), in./in. or cm/cm	4.8 x 10 <sup>-3</sup>	3.6 x 10 <sup>-3</sup>		
<b>BOND TO CONCRETE</b>	<b>Concrete Failure</b>	<b>Concrete Failure</b>	<b>ASTM C 882</b>	
<b>ADHESION TO STEEL (clean, sandblasted), psi (MPa)</b>	2,500 (17.2)	2,500 (17.2)	<b>ASTM D 4541</b>	
<b>HARDNESS, Shore D</b>	92	93	<b>ASTM D 2240</b>	
<b>WATER ABSORPTION %</b>			<b>ASTM D 570</b>	
28 day immersion @ 72 °F or 22°C	0.15	0.25		



**Packaging:** Atlantic Track CRS Grout is a three component system that includes five bags of aggregate for a unit yield of approximately 2.0 cubic feet (273lb kit). If higher flow is required one bag of aggregate may be put aside (4 bag) for a unit yield of approximately 1.7 cubic feet. Aggregate reduction shall be discussed with design engineer and Atlantic Track prior to proceeding with that approach.

Standard Atlantic Track CRS Grout:  $3446 \text{ in.}^3 = 2.0 \text{ ft.}^3$ , approximately (0.06 m<sup>3</sup>)

- 1 each—5 Gallon Pail of Atlantic Track CRS Grout Resin. Approximate weight: 29 lbs. (Part A)
- 1 each—1 Gallon F-Style Container of Atlantic Track CRS Grout Hardener. Approximate weight: 7 lbs. (Part B)
- 5 Bags of Atlantic Track CRS Grout Aggregate Blend. Approximate weight: 48 lbs. each bag  
⇒ For Shipping Purposes: 144 Standard units (288 ft.<sup>3</sup>) can ship on one standard flatbed truck.

High Flow Atlantic Track CRS Grout:  $2937 \text{ in.}^3 = 1.7 \text{ ft.}^3$ , approximately (0.048m<sup>3</sup>)

- 1 each—5 Gallon Pail of Atlantic Track CRS Grout Resin. Approximate weight: 29 lbs. (Part A)
- 1 each—1 Gallon F-Style Container of Atlantic Track CRS Grout Hardener. Approximate weight: 7 lbs. (Part B)
- 4 Bags of Atlantic Track CRS Grout Aggregate Blend. Approximate weight: 48 lbs. each bag  
⇒ For Shipping Purposes: 180 High Flow units (306 ft.<sup>3</sup>) can ship on one standard flatbed truck.

**Delivery, Storage & Handling:** The Atlantic Track CRS Grout will be delivered to the jobsite in the original, unopened packages, complete with proper identification, printed instructions and batch code.

The shelf life of the Atlantic Track CRS Grout is two years from date of manufacture when maintained in original unopened packaging when stored in dry conditions above 60°F. Although the resin will not freeze, it may partially crystallize if stored at low temperatures for an extended period of time. Aggregate shall be kept free of all moisture.

For additional handling instructions, refer to the Material Safety Data Sheet

**Application:** The working time of this grout (before set) will vary according to the air temperature. The average working time at 72 °F (22 °C) will be 45 minutes. Pouring time and viscosity decrease as temperature increases. The cure time (strength realization) will also depend on the air temperature and the temperature of the foundation and machinery being grouted. Care should be taken to insure that the entire kit is poured before the working time elapses. Do not mix more than can be poured during the working time.

Always sweep (pour) from one side of the base toward the other to eliminate entrapped air. The storage temperature of the unmixed kits of grout will greatly affect both the ease of pouring and the cure time. For best results, grout kits should be stored in a warm room for at least 24 hours before use.

During cold weather (below 50 °F or 10 °C), it is important that the foundation be enclosed and maintained above 50 °F or 10 °C. The cure time of the grout will be longer during cold weather and it is important that the grouted area be kept warm (above 50 °F or 10 °C) until the grout has cured completely. Do not pour if the grout is below 50 °F (10 °C). Conversely in hot weather, do not mix and pour in direct sunlight. Cover or “tent” operations to prevent grout from setting up too quickly.

**Required Equipment:** All necessary tools, equipment and materials shall be as close as possible to the area being grouted, such as mixers, trowels and grout. Provide an adequate number of mixers, in good operating condition, for uninterrupted placement. Equipment shall be clean and dry.

Appropriate clothing and safety equipment shall be worn to avoid breathing dust and prevent eye and skin contact with components and mixed grout. Please review the Atlantic Track CRS Grout SDS.

Wheelbarrows and buckets shall be clean and available for transporting mixed grout. Contractor will require a headbox and plunger when pouring the Atlantic Track CRS Grout. Please consult with Atlantic Track for the ‘Grout Headbox Design’ Technical Bulletin.

**Mixing:** Mortar Mixer Only (Stationary Barrel with Moving Paddles).

Always use at least one-half the capacity of mixer when mixing grout.

First combine Component A (resin) and Component B (hardener) into pail containing Component A (resin). Mix thoroughly by hand with a paddle or by slow speed mixer until a uniform color (no streaks) is obtained; avoid air entrapment. Immediately pour all mixed liquids into mortar mixer. While mixing at a slow speed (approximately 20RPM), slowly add Component C (aggregate) without delay and mix only until aggregate is completely wet.

Do not mix more material than can be placed within the working time of the grout.



Surface

**CONCRETE PREPARATION:**

Preparation: All surfaces to be in contact with the Atlantic Track CRS Grout shall be free of oil, grease, laitance and other contaminants. The concrete must be clean, sound, dry and mechanically roughened to CSP-5-9 per ICRI Technical Guideline 310.2. Do not prime or seal concrete surfaces to be epoxy grouted. Light acid etching surface preparation procedures may result in poor bond and should be avoided. Please refer to ACI 351.1R, Grouting Between Foundations and Bases for Support of Equipment and Machinery for additional information.

**FORMING:**

Formwork shall be constructed of rigid nonabsorbent materials, securely anchored, caulked liquid tight and strong enough to resist forces developed during grout placement. Standard wood or metal forming may be used. The forms should be protected with heavy coats of paste wax, grease, or form release agent. Wrapping the forms with heavy plastic is acceptable.

When placing forms for grouting, it is absolutely necessary that the height of the form work extends a minimum of 1" above the bottom edge of the base plate being grouted.

Formwork shall be constructed so that grout is placed across the shortest distance whenever possible. The clearance between formwork and baseplate shall be sufficient to allow for the insertion of a proper headbox. The clearance for remaining sides shall be a minimum of 1".

**PREPARATION OF METAL SURFACES:**

Where bond to metal surfaces is not required, coat with a bond breaker such as paste wax or duct tape.

Where bond to metal surfaces is required, the surface shall be clean, free of oil, grease, rust and other contaminants. Sandblasting to a SSPC-SP6 commercial finish will optimize bond development to steel surfaces.

Placement: Grout must be placed without interruption. Should a delay occur beyond the working time of the material, all equipment used in mixing and placing the epoxy grout, shall be cleaned.

A headbox or similar device is required for a continuous pour to avoid air pockets under the baseplate. All grouting shall be placed from one side to the other, maintaining contact with the bottom of the baseplate at all times, maximizing effective bearing area (EBA).

When installing grout under long baseplates, start pouring from one end across the short dimension and work down the longer side as the material fills under the baseplate.

When pouring through grout holes, placement shall proceed continuously with a headbox until the grout has risen in the next hole. Maintain head pressure at initial hole so that grout stays in contact with the bottom of the baseplate at all times. Commence grouting at the next hole with an additional headbox. Continue the process, alternating headboxes until grouting is complete.

When pouring, the headbox shall be kept at least half full and filled in a manner to avoid air entrapment. If necessary to assist the flow, a plunger may be used. This procedure shall continue until the grout rises above the bottom edge of the baseplate on the opposite side.

Throughout the pour, forms shall be constantly checked for leaks. All leaks shall be sealed immediately.

If two or more layers are necessary, rake or scarify the surface of the initial pour. The surface temperature of the initial pour shall have cooled to 90°F (32°C) maximum prior to placing additional layers. Additional layers shall be placed within 24 hours.





**Post Placement:** Final finishing should ensure material is flush with bottom edge of soleplate. Finishing of exposed surfaces is aided by using a solvent wiped trowel just before material becomes unworkable. Epoxy grouts cannot be trimmed after set except by mechanical means. Final level in the forms should be brought to the finished elevation before hardening.

Protect grout from temperature extremes, rain and water after placement. Do not wet cure epoxy grout.

The grout shall be protected from temperatures below 45°F (7°C) until required minimum compressive strength is achieved. In-service operation may begin immediately after minimum required grout strength and modulus have been achieved.

**Extreme Conditions:** Cold Weather Grouting: [Low temperatures decrease flow, delay set and strength development of epoxy products. The procedures below may compensate for these conditions.]

Materials shall be conditioned so that placed grout is between 70°F and 90°F (21°C and 32°C). Due to the mass of palletized material (aggregate), up to 72 hours of conditioning may be required. Store all epoxy grout components (resin, hardener and aggregate) in an enclosed heated area when necessary.

All surfaces in contact with grout shall be preconditioned and maintained between 60°F and 90°F (16°C and 32°C) for at least 24 hours.

When necessary, heating shall be accomplished by indirect exposure. Heated enclosures must be windproof and weatherproof. Heaters shall not be permitted to unevenly heat concrete. Caution: Exhaust gases of unvented heaters may contaminate or cause carbonation of concrete within the enclosed environment.

Grout temperature shall be maintained above 60°F (16°C) until grout reaches required strength. Note: Temperatures below 60°F during cure will reduce strength development time for epoxy grout.

Gradually allow grout temperature to cool to ambient to avoid thermal shock.

For surface temperatures below 60°F (16°C), contact [Atlantic Track](#).



**Hot Weather Grouting:** [High temperatures accelerate set, decrease working time, and accelerate strength gain of epoxy products. The procedures below may compensate for these conditions.]

Materials shall be conditioned so that placed grout is between 70°F and 90°F (21°C and 32°C). Due to the mass of palletized material, up to 72 hours of conditioning may be required.

All surfaces in contact with grout shall be preconditioned and maintained between 60°F and 90°F (16°C and 32°C) for at least 24 hours

Shade application areas from direct sunlight or pour grout when temperatures are decreasing. When other cooling methods are used, extreme caution shall be taken to insure all surfaces in contact with grout are completely dry before grouting.

Grout shall remain shaded and protected for at least 24 hours after placement.

For surface temperatures above 90°F (32°C), contact [Atlantic Track](#).

**Clean-Up:** All tools and equipment may be cleaned with a water and strong detergent solution before material hardens. Sand may be used as an abrasive. A suitable solvent is required for clean up of material after hardening.



**SAFETY PRECAUTIONS**

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions (such as heated polymers, sanding) may cause high vapor concentrations. **DO NOT WELD ON, BURN OR TORCH ON OR NEAR, ANY EPOXY MATERIAL. HAZARDOUS VAPOR IS RELEASED WHEN AN EPOXY IS BURNED.**

**WARRANTY AND DISCLAIMER**

Atlantic Track gives no warranty, express or implied, and all products are sold upon condition that purchasers will make their own tests to determine the quality and suitability of the product. Test results of samples obtained in the field can vary greatly based on field temperature, ground and plate temperature, mixed product temperature, actual aggregate loading, test cube geometry and storage and the testing procedures used by the contracted testing facility. Atlantic Track shall be in no way responsible for the proper use and service of the product. The information given in this publication is considered to be accurate and reliable and is provided as a service only. Physical properties shown are typical and do not imply any minimum or maximum values. Actual properties are dependent on curing conditions and degree of cure. Any information or suggestions given are without warranty of any kind and purchasers are solely responsible for any loss arising from the use of such information or suggestions. No information or suggestions given by us shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.



ISO 9001:2015 Certified

**Atlantic Track Crane Runway Division**

1001 James Drive, Suite B37 • Leesport, PA 19533 • Phone: 610-916-2840 • Fax: 610-916-0898

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