



WEAVER GENERAL CONSTRUCTION COMPANY
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 Englewood, CO 80110
 Phone: (303) 789-4111 FAX: (303) 789-4310

SUBMITTAL TRANSMITTAL

May 27, 2011

WGC Submittal No: 03600-001

PROJECT: **Harold Thompson Regional WRF**
 Birdsall Rd.
 Fountain, CO 80817
 Job No. 2908

ENGINEER: **GMS, Inc.**
 611 No. Weber St., #300
 Colorado Springs, CO 80903
 719-475-2935 Roger Sams

OWNER: **Lower Fountain Metropolitan
 Sewage Disposal District**
 901 S. Santa Fe Ave.
 Fountain, CO 80817
 719-382-5303 James Heckman

CONTRACTOR: **Garney Companies Inc.**
 7911 Shaffer Parkway
 Littleton, CO 80127
 303-791-3600 Dennis Van Auken

SUBJECT: Non-Shrink Grout for Tie Hole Patching

SPEC SECTION: 03600

PREVIOUS SUBMISSION DATES: None

DEVIATIONS FROM SPEC: ___ YES X NO

CONTRACTOR'S STAMP: This submittal has been reviewed by Weaver General Construction and approved with respect to the means, methods, techniques, & safety precautions & programs incidental thereto. Weaver General Construction also warrants that this submittal complies with contracted documents and comprises on deviations thereto:

Contractor's Stamp:

Engineer's Stamp:

Date: 5/27/11
 Reviewed by: H.C. Myers
 (X) Reviewed Without Comments
 () Reviewed With Comments

**ENGINEER'S
 COMMENTS:** _____

Material Safety Data Sheet

U.S. Department of Labor

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

Identity: (As used on Label and List) SC Multipurpose Grout	Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.
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Section I	
Manufacturer's Name SpecChem	Emergency Telephone Number (800) 424-9300
Address (Number, Street, City, State, and ZIP Code)	Telephone Number for Information (913) 371-8700
444-B Richmond Ave	Date Prepared 2/23/07
Kansas City KS 66101	Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information				
Hazardous Components ; Common Name(s))	% by weight	OSHA PEL	ACGIH TLV	
<i>(Specific Chemical Identity)</i>				
65997-15-1 Portland Cement	25-40	5 mg/m ³	10 mg/m ³	
14808-60-7 Silica or Natural Sand	60-70	0.1 mg/m ³	.01 mg/m ³	
NIOSH RECOMMENDS - A permissible exposure limit of 50 micrograms respirable free silica per cubic meter of air averaged over a normal work week of 40 hours.				

Section III - Physical/Chemical Characteristics			
Boiling Point	N/A	Specific Gravity (H₂O = 1)	N/A
Vapor Pressure (mm Hg.)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water Negligible			
Appearance and Odor Gray appearance - no odor			

Section IV - Fire and Explosion Hazard Data			
Flash Point (Method Used) N/A	Flammable Lmt N/A	LEL N/A	UEL N/A
Extinguishing Media N/A			
Special Fire Fighting Procedures Non-combustible; non-explosive			
Unusual Fire and Explosion Hazards N/A			

Section V - Reactivity Data			
Stability:		Conditions to Avoid:	
Unstable		Silica Sand is capable of dissolving in hydro-flouric acid &	
Stable	X	producing a gas - Silicon Tetrafluori	
Incompatibility (Materials to Avoid) Not incompatible with most materials			
Hazardous Decomposition or Byproducts			
Hazardous Polymerization:		Conditions to Avoid:	
May Occur			
X Will Not Occur		Upon direct contact with water, material will harden.	

Section VI - Health Hazard Data			
Route(s) of Entry:	Inhalation? Yes	Skin? Yes	Ingestion? Yes
Health Hazards (Acute and Chronic) MSHA & OSHA Classification as nuisance dust			
Carcinogenicity:	NTP? No	IARC Monographs? Yes	OSHA Regulated? No
Signs and Symptoms of Exposure skin dryness; alkali burns; nuisance resulting in eye & respiratory systems, shortness of breath, reduced pulmonary function.			
Medical Conditions Generally Aggravated by Exposure Those with sensitive skin or with pulmonary/respiratory disease such as asthma & bronchitis should be precluded from exposure.			
Emergency and First Aid Procedures Repeatedly flood eyes with clean water. Exposed skin areas should be washed with soap & water; for inhalation get fresh air. Get medical attention.			

Section VII - Precautions for Safe Handling and Use	
Steps to Be Taken in Case Material Is Released or Spilled With adequate ventilation, clean-up with as little as dust as possible and place into a closed container for disposal or use.	
Waste Disposal Method In accordance with Federal, State and Local Regulations may be treated as common waste.	
Precautions to Be Taken in Handling and Storing In accordance with Federal, State and Local Regulations may be treated as common waste.	
Other Precautions Keep dry whenever possible.	

Section VIII - Control Measures	
Respiratory Protections (Specify Type) NIOSH, MSHA, or OSHA Approved respirator	
Ventilation	
Local Exhaust to control dust if necessary	Special
Mechanical (General)	Other
Protective Gloves Recommended	Eye Protection Recommended
Other Protective Clothing or Equipment: Use impermeable protective clothing. Prevent skin contact with contaminated clothing.	
Work/Hygienic Practices Wash clothing before re-use. Thoroughly clean contaminated clothing.	

Section IX - Special Precaution**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:**

KEEP MATERIAL DRY UNTIL USED. HIGH HUMIDITY OR MOISTURE WILL CAUSE PREMATURE HARDENING OF MATERIAL.

OTHER PRECAUTIONS:

DO NOT TAKE INTERNALLY. WASH HANDS AFTER USE AND BEFORE SMOKING OR EATING, EXPOSURE TO AIRBORNE CRYSTALLINE SILICA SHALL NOT EXCEED 8 HOURS A DAY, SEE 29CFR 1910.1000 TABLE Z-3. SEE ALSO OSHA 29 CFR.1910.134; ANSI Z.88.2; NIOSH POCKET GUIDE TO CHEMICAL HAZARD

Section X - SARA Title II InformationThis product contains the following substances subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: **N/A**

Name			
CAS#			
PC WEIGHT			

Section XI - D.O.T. Regulations (Transportation)

Hazard Class	N/A
ID Number	N/A
Packing Group	III
Proper shipping name	Not regulated by DOT
Label	N/A
US Domestic Ground Shipments	Not regulated by DOT
US Domestic Ground Shipments-Non-Bulk (in containers 119 gal or less)	Not regulated by DOT
Cross Border transport (ADR/RID)	N/A
ADR/RID Class	
Danger Code (Kemler)	
UN Number	
Label	
Packing Group	
Description	
Marine Transport (IMDG)	N/A
IMDG Class	
UN Number	
Label	
Packing Group	
EMS Number	
Marine pollutant	No
Proper shipping name	
Air Transport (ICAO-TI and IATA-DGR)	N/A
ICAO/IATA class	
UN Number	
Label	
Packing Group	
Proper shipping name	

Disclaimer and Limitation of Liability

The information and recommendations contained herein were obtained from sources we believe to be accurate and reliable as of the date revised. However, SpecChem does not warrant or guarantee their accuracy or reliability, and shall not be liable for any loss or damage arising out of the use thereof. The information and recommendations are offered for the user's consideration and examination and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use.

SC MULTIPURPOSE GROUT

Non-shrink, Non-metallic grout



DESCRIPTION

SC MULTIPURPOSE GROUT is a non-shrink, non-metallic multipurpose cement-based grout. SC MULTIPURPOSE is formulated for a wide variety of grouting applications, from damp pack to flowable through a controlled, positive expansion.

USE

Recommended applications include grouting of pump and equipment based column base plates, anchor bolts, pre-cast and tilt-up walls.

FEATURES / BENEFITS

- Controlled positive expansion for maximum effective bearing
- Non-metallic / non-corrosive
- Pourable / pumpable versatility
- Excellent freeze / thaw resistance
- Can be extended with pea stone for deep applications

SPECIFICATIONS / COMPLIANCES

Corp of Engineers CRD-C-621 Grade A, B & C
ASTM C-1107. Grade A, B & C

APPLICATION

Preparation: Remove all dirt, oil, and loose or foreign material. Any metal in contact with grout must be free of rust, oil, grease, and other foreign matter which would limit bond. Concrete surface must be sound and roughened to insure proper bonding. Prior to placing grout, surface should be saturated for a minimum period of four hours and preferably for twenty-four hours. Remove all excess water before placement of grout. Bolts, base plates and equipment must be secure and rigid before placement of grout.

Forms: Allow for the continuous placement of grout. Provisions for venting to avoid air entrapment must be made. Placing from one side, provide a 45° angle in the forms to a height suitable to provide a head of grout during placement. On all sides, provide a minimum 1" (2.54 cm) horizontal clearance between the base plate and forms. Forms should be at least 1" (2.54 cm) higher than the bottom of the base plate.

Mixing: Small quantities of grout may be hand mixed in a concrete mixing pan until lump free. For large quantities and continuous pours, mix using a mortar mixer with rubber tipped blades or appropriate grout pump for a minimum of 5 minutes. Start with minimum water requirements. Always add water to mixer first, then slowly add powder.

Use only the amount of water required for the desired placement consistency. Mix in two steps: Add 2/3 of the water, add grout, after partial mixing add the remaining 1/3 of the water for desired consistency. Thoroughly mix total quantity for an additional 2 to 3 minutes. Do not mix more than can be placed in 30 minutes. Test data and recommended water amounts are based on laboratory conditions. Actual field results may vary based on jobsite conditions.

Placing: Place continuously and quickly. Start from one side to avoid air trapment. Be sure grout fills spaces and remains in contact with plate. DO NOT VIBRATE. A minimum of 1" (2.48 cm) vertical clearance should be maintained for base plate grouting applications. Thinner vertical clearances may require the use of another type of grout.

Curing: Immediately cover with clean, wet rags (do not use burlap) and keep moist until final set. After final set, remove rags and apply an ASTM-C-309 curing compound, such as SpecChem Cure & Seal 25.

TYPICAL PERFORMANCE DATA

	Plastic	Flowable	Fluid
Water / 50 lb.	6.30-6.85 pints	6.85-7.75 pints	7.75-8.35 pints
Compressive Strength (ASTM C-109)			
	Plastic	Flowable	Fluid
1 day	4,000 psi	3,100 psi	2,100 psi
3 days	5,500 psi	5,000 psi	4,000 psi
7 days	8,100 psi	6,900 psi	5,100 psi
28 days	10,200 psi	8,400 psi	7,000 psi
Expansion Percentage (ASTM C-1090)			
	Plastic	Flowable	Fluid
1 day	0.07	0.03	0.03
3 days	0.07	0.03	0.02
14 days	0.07	0.03	0.02
28 days	0.07	0.03	0.02
Note: the data shown is based on controlled laboratory testing. Reasonable variation from test results shown can be expected. Field and laboratory testing should be controlled on the basis of the desired placing consistency, rather than strictly on water content.			



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www.specchemllc.com 866-791-8700

APPLICATION (cont.)

Special Conditions:

Deep application: Pre-washed and graded 3/8" (1 cm) pea gravel must be used in applications thicker than 3" (7.62 cm) as follows:

- 3"-5" (7.62-12.7 cm): Add 25% of 3/8" (1 cm) pea gravel per 50 lb bag of grout.
- 5" (12.7 cm) and over: Add 50% of 3/8" (1 cm) pea gravel per 50 lb bag of grout.
Place in 6" lifts with proper reinforcement

Hot weather conditions: Provide shade for area to be grouted. Use cool or chilled mixing water. Protect grout from direct sun exposure for up to 24 hours after grouting. The maximum temperature (ambient and substrate) for grouting is 85°F (29°C) The maximum grout temperature should not exceed 80°F (27°C). For additional information, refer to ACI 305 (Recommended Practices for Hot Weather Concreting).

Cold weather conditions: Raise the temperature of the area to be grouted with space heaters or steam. Warm the mixing water. Cover and insulate the grout to retain warmth. The minimum temperature (ambient, substrate, and grout) for grouting is 40°F (5°C). For additional information, refer to ACI 306 (Recommended Practices for Cold Weather Concreting)

PACKAGING / YIELD

50 lb (22.7Kg) multiple plastic lined bag will yield approximately 0.45 cu. ft. in a fluid condition.
50% by weight extension (25 lbs) of 3/8" pea stone will yield approximately 0.59 cu. ft.

LIMITATIONS / PRECAUTIONS

DO NOT place at temperatures below 40°F (5°C) or if the temperature is expected to fall below 40°F (5°C) in the next twenty four hour period. At low temperatures, water requirement should be field tested.

When nearby equipment causes vibration of the grout, such equipment should be shut down for a period of 24 hours (at 73°F (23°C)). DO NOT mix over 5 minutes. DO NOT over water; this can cause bleeding or separation. DO NOT retemper. DO NOT add cement, sand, aggregate, or admixtures.

Avoid hazards by following all precautions found in the Material Safety Data Sheets (MSDS), product labels, and technical literature

SHELF LIFE / STORAGE

SC MULTIPURPOSE GROUT should be stored in a cool, dry interior area. At no time should material be exposed to high moisture, rain, or snow conditions. When stored in the original, tightly closed container, the shelf life is one year from the date of manufacture.

TECHNICAL SERVICES

For assistance, contact technical services at:
866-791-8700 913-371-8700
www.specchemllc.com

24 HOUR EMERGENCY CONTACT:

CHEMTREC - 800-424-9300

WARRANTY

NOTICE-READ CAREFULLY CONDITIONS OF SALE

SpecChem offers this product for sale subject to and limited by the warranty which may only be varied by written agreement of a duly authorized corporate officer of SpecChem. No other representative of or for SpecChem is authorized to grant any warranty or to waive limitation of liability set forth below.

WARRANTY LIMITATION

SpecChem warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, SpecChem will replace the defective product with new product without charge to the purchaser. SpecChem makes no other warranty, either expressed or implied, concerning this product. There is no warranty of merchantability. NO CLAIM OF ANY KIND SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT IN RESPECT OF WHICH DAMAGES ARE CLAIMED.

INHERENT RISK

Purchaser assumes all risk associated with the use or application of the product.



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