



# TECHNICAL DATA SHEET

## HORN GROUT UW

### Cementitious Grout for Underwater Use

03600

GROUT  
CONCRETE

TAMMS INDUSTRIES  
MARCH 2002

GROUT  
CONCRETE

03600

- DESCRIPTION:** HORNGROUT UW is a flowable, high strength cementitious grout designed for underwater placement. HORNGROUT UW requires only potable mixing water before use and exhibits resistance to washout of cement and fines, while resisting the blending of external water into the plastic grout.
- USES:** HORNGROUT UW is formulated for underwater applications including underwater grouting, pier supports or repair, off shore rigging and repair or support of other underwater concrete structures.
- COMPOSITION AND MATERIAL:** HORNGROUT UW is a proprietary formulation of cements, graded aggregates and chemical additives. It contains no added chlorides or calcium sulfates.
- APPLICATION TECHNIQUES:** HORNGROUT UW is factory proportioned and comes ready to use after mixing with potable water. A paddle type mortar mixer should be used for best results. Use 4.5 quarts of water per 50 lb bag to produce a flowable but not fluid grout. Add two thirds of the required water into the mixer, then add the powdered grout and mix partially. Add the remaining water and thoroughly mix the entire quantity for 2 - 3 minutes. Place in a continuous manner by pump or tremie. For placements where the clearance is greater than 2", HORNGROUT UW may be extended with up to 20 lb of 3/8" pea gravel per 50 lb bag. No special curing is required for underwater applications. Air exposed surfaces should be cured according to ACI guidelines.
- CAUTIONS:** Do not mix more material than can be placed in 25 minutes. Do not retemper with additional water after the mix has begun to set. Do not aerate the mix.
- YIELD:** One 50 lb bag will yield approximately 0.43 cu. ft. of grout.
- CLEAN-UP INSTRUCTIONS:** Clean tools and equipment with water before the grout hardens. Hardened grout may require mechanical abrasion for removal.
- ENVIRONMENTAL and SAFETY PRECAUTIONS: Industrial Use Only.** Contains silica sand and IARC reports crystalline silica may cause cancer in humans. May cause delayed lung injury. Contains portland cement which is alkaline on contact with water. Irritating to eyes and skin. Avoid eye and skin contact. Do not breathe dust. In case of eye contact, flood eyes with copious amounts of water and call a physician. DO NOT RUB EYES. Wash skin thoroughly after handling and before smoking or eating. Use adequate ventilation. KEEP AWAY FROM CHILDREN AND ANIMALS. EMERGENCY RESPONSE PHONE NUMBER: (800) 862-2667 TAMMS OR (800) 424-9300 CHEMTREC.

Material Properties @ 75°F.	
<b>Compressive Strength, ASTM C109, psi</b>	
1 day	3,200
3 day	4,600
7 day	5,600
28 day	7,200
<b>Setting Time, ASTM C191, hrs</b>	
Initial	2.0 - 2.5
Final	4.0 - 6.0
<b>Volume, Change, CRD 621, %</b>	
1 day	0.025
3 day	0.030
7 day	0.030
28 day	0.030
Typical results, developed under laboratory conditions.	

TAMMS INDUSTRIES  
MARCH 2002

11. **PACKAGING & STORAGE:** 50 lb poly-lined and DOT approved bags. Protect from moisture. Shelf life is one year in unopened bags and in protected storage. Freight class is 55.
  
12. **TECHNICAL SERVICE:** For application procedures or surface conditions not specified above, please contact:

TAMMS INDUSTRIES  
3835 State Route 72, Kirkland, IL 60146  
800-862 -2667 FAX: 815-522-2323  
[www.tamms.com](http://www.tamms.com)

**WARRANTIES:** Seller warrants that the Products do not infringe upon any copyright, patent, or trademark or trade secret, nor violate the proprietary information rights of any third party. Seller warrants that its Products will conform to and perform in accordance with the Products' specifications. THE FOREGOING WARRANTIES, ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. **LIMITATION ON LIABILITIES:** Because of the difficulty of ascertaining and measuring damages hereunder, it is agreed that, except for claims for bodily injury. Seller's liability to the Buyer or any third party, for any losses or damages, whether direct or otherwise, arising out of the purchase of Product from Seller by Buyer shall not exceed the total amount billed and billable to the Buyer for the Product hereunder. **IN NO EVENT WILL SELLER BE LIABLE FOR ANY LOSS OF PROFITS OR OTHER SPECIAL OR CONSEQUENTIAL DAMAGES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**