ChemGrout®

Material Testing Results

"Equipment for Grouting Since 1969"

805 E. 31st Street, P.O. Box 1140 **Date**: July 27, 2000

Manufacturer: Crossfield Products Corp. Contact: Jim Oaks

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Material: Miracote RM Type III Lot # 3644

Material Application: Repair Mortar

Batch mixed with "Miracote Repair Mortar Type III Liquid"

Mfg. Plant: Rancho Dominguez, CA Std. Bag Weight: 36 #

Testing Conditions: Outside Temperature: 84.9*F Humidity: 56%

Equipment Used: Model: CG570 Pump: 2TJ6 Progressing Cavity

Mixer: Paddle Power: Hydraulic

Std. Mix Ratios: (1) 36 lb. bag to (1) gal. liquid **Polymer Temp:** 84.7 *F

Batching Method: Quantity Material: 180 lbs. Quantity Water: 42.5 lbs

Mixing Time: 60-70 Seconds Batch Temp: 94.6 *F

Specific Gravity: SG = 2.45 **Flow Cone** N/A Seconds

Pumping Method: Recirculated through hose, recorded pressures at various flow rates.

| Flow Rate/Pressure: | Flow Rate | Pressure | Flow Rate | Pressure |
|----------------------------|-----------|----------|-----------|----------|
| Hose (50" L x 1 1/4" I.D.) | 3.1 GPM | 15 PSI | GPM | PSI |
| Hose () | 4.6 GPM | 20 PSI | GPM | PSI |
| Hose () | 7.5 GPM | 30 PSI | GPM | PSI |
| Hose (stopped pumping) | GPM | PSI | GPM | PSI |
| Hose (suspect aggragate) | GPM | PSI | GPM | PSI |
| Hose (jammed pump) | GPM | PSI | GPM | PSI |
| Hose (HP requirements) | GPM | PSI | GPM | PSI |
| Hose (to high for pumping) | GPM | PSI | GPM | PSI |
| Hose (any distances) | GPM | PSI | GPM | PSI |
| Hose () | GPM | PSI | GPM | PSI |

Observations: Mixed good, thick-sticky material, fast setting, has Neoprene, hard to cleanup

blueish to dark gray, thick gritty, pumped at relatively high pressures for low flow

rates, estimate maximum pumping distance only 25 feet at low flow rates,

Results: ChemGrout, Inc. rate the pumpability of this product as a "4" out of 10, with

10 being the easiest. ChemGrout, Inc. recommends a CG2L8 pump or higher.