

ChemGrout[®]

"Equipment for Grouting Since 1969"

805 E. 31st Street, P.O. Box 1140

LaGrange Park, Illinois 60526

Phone: 708-354-7112 Fax: 708-354-3881

Web Site: www.chemgrout.com

September 22, 1999

Mr. Jerome H. Ford
Dayton Superior Corp.
402 South First Street
Oregon, IL 61061-1836

Reference: Pumping test, Dayton-Superior HD-25 polymer modified grout.

Dear Mr. Ford:

In pumping tests conducted at ChemGrout's manufacturing facility in La Grange park, Illinois on this date, Dayton-Superior HD-25 was determined to mix and pump readily through 50 feet of 1-1/4 inch I.D. grout hose under the following conditions:

AMBIENT TEMPERATURE:	71 Degrees F.
WEATHER CONDITIONS:	Sunny, clear, Wind N/E @ 5 MPH
EQUIPMENT:	ChemGrout Model CG-570H, Factory electric/hydraulic test unit, 50 feet of 1-1/4 inch I.D. grout hose, and 1-1/4 Inch spray wand.
PROCEDURE:	Using the higher recommended mixing water content (4 quarts per bag), three bags of material were mixed and pumped through 50 feet of 1-1/4 inch grout hose, returning the material to the mixer. When full return flow was observed, the pump was stopped momentarily, and a spray wand with a 3/8" orifice was attached and the material was sprayed on a vertical surface to a thickness of approximately 3/4 inch in one pass.
RECOMMENDATIONS:	The smooth, fluid appearance of the material suggests that it might be mixed successfully with slightly less water, and that a slightly smaller diameter spray nozzle might also be used to obtain more even material dispersion.
CONCLUSION:	HD-25 appears to have excellent characteristics for mechanical mixing, pumping and spray application with the equipment described.

Very truly yours,

ChemGrout, Inc.
Donald C. Hegebarth
Chief Engineer