



**FROEHLING & ROBERTSON, INC.**  
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS  
ENGINEERS • LABORATORIES  
"OVER ONE HUNDRED YEARS OF SERVICE"  
3015 Dumbarton Road • Richmond, Virginia 23228  
PHONE (804) 264-2701 • FAX (804) 264-7862

Record No: D60-0404T

February 6, 2003

**REPORT OF LABORATORY TESTS**

Made for: Carolina Stalite Co.  
Old Beatty Ford Road  
P O Box 186  
Gold Hill, NC 28071

Attention: Mr. Jody Wall

Sample: ¾" Aggregate

**Falling Head Permeability Test (ASTM D 2434)**

	¾" Aggregate
Dry Density (pcf)	60.3
Average Permeability over 3 tests (cm/sec)	2.4

Our services were limited to performing laboratory testing. These laboratory test results should be interpreted and applied using good judgment and discretion. Froehling & Robertson, Inc., appreciates the opportunity of working with you on this project. If you have questions regarding this report or if we can be of further service to you, please feel free to contact the undersigned.

Respectfully Submitted  
**Froehling & Robertson, Inc.**

Frederick S. Proper  
Geotechnical Engineering Staff

\\Server1\\ServerHD\\Users\\FProper\\Laboratory Testing\\Laboratory Testing\\D60-0404T\\CarolinaStalite.doc

**HEADQUARTERS:** 3015 DUMBARTON ROAD • BOX 27524 • RICHMOND, VA 23261-7524  
TELEPHONE (804) 264-2701 • FAX (804) 264-1202 • www.FandR.com

**BRANCHES:** ASHEVILLE, NC • BALTIMORE, MD • CHARLOTTE, NC • CHESAPEAKE, VA  
CROZET, VA • FAYETTEVILLE, NC • FREDERICKSBURG, VA  
GREENVILLE, SC • RALEIGH, NC • ROANOKE, VA • STERLING, VA

Froehling & Robertson, Inc.



# PERMEABILITY TEST

## ASTM D 2434

CLIENT: Carolina Stalite  
 PROJECT: Laboratory Testing  
 LOCATION: Richmond, Virginia  
 F&R NO: D60-0404T

DATE: February 6, 2003

BORING: N/A      SAMPLE: Bulk      DEPTH: N/A      DESCRIPTION: 3/4" Aggregate  
 SAMPLE PREPARATION METHOD (ASTM D 698): Self-Compacting

INITIAL SAMPLE DATA	
HEIGHT (cm.)	15.24
DIAMETER (cm.)	30.48
AREA (cm <sup>2</sup> )	729.66
VOLUME (cm <sup>3</sup> )	11120.03
WEIGHT (lb)	23.90
MOISTURE CONTENT (%)	1.00
DRY DENSITY (pcf)	60.26

FINAL SAMPLE DATA	
HEIGHT (in.)	15.24
DIAMETER (in.)	30.48
AREA (in <sup>2</sup> )	729.66
VOLUME (in <sup>3</sup> )	11120.03
WEIGHT (g)	25.10
MOISTURE CONTENT (%)	6.00
DRY DENSITY (pcf)	60.30

Test No.	Manometers		Head h (cm)	t (sec)	h/L	Temp (F)	k (cm/s)
	H1	H2					
1	53.98	15.2	38.74	7.4	2.542	55	2.61
2	53.98	15.2	38.74	7.5	2.542	55	2.57
3	53.98	15.2	38.74	7.3	2.542	55	2.64
4	64.5	15.2	49.26	9.9	3.232	55	2.22
5	64.5	15.2	49.26	9.8	3.232	55	2.24
6	64.5	15.2	49.26	9.8	3.232	55	2.24
7	71.12	15.2	55.88	10.4	3.667	55	2.26
8	71.12	15.2	55.88	10.6	3.667	55	2.22
9	71.12	15.2	55.88	10.8	3.667	55	2.17

Average k (cm/sec): 2.35E+00