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Client	ICS/Penetron International Ltd. c/o All Island Testing Laboratories
Project	Information of Client
Subject	Bond Strength of Penetron Caoted Concrete

Report No. 93-4091 Date 10/25/93

At the Clients request, laboratory tests were performed to determine the bond strength of Penetron treated concrete surfaces. The test procedure used was similar to ASTM C 321.

EXPERIMENTAL DESIGN

The concrete mix used for the study is presented on Attachment I.

The concrete was cast into brick size blocks (7 3/4 x 3 1/2 x 2 1/4 inches). At the age of 14 days, one surface of the concrete specimens were treated with Penetron by trowel application as per ASTM C 321, section 7; "preparation of cross-brick test specimens".

The specimens were conditioned for two weeks at 73°F, in a moist cabinet at 100% relative humidity.

At the end of 3, 7 and 14 days of conditioning, the cross-block specimens were subjected to a bond test.

TEST RESULTS

SPECIMEN NO. (*)	AGE, DAYS	BOND STRENGTH, PSI (**)
A	3	108
B	7	155
C	14	220

(*) All specimens were treated with Penetron coating.
(**) The test results are the average of duplicate specimens.

CONCLUSIONS

Based on these test results, the bonding strength of Penetron to concrete at 14 days af age was 220 psi. It is expected that at the age of 28 days the bonding strength will reach at least 250 psi.

SHIMEL AND SOR TESTING LABORATORIES, INC.

Kamil Sor, Ph.D.
President

KS/smd
cc: (1) Client
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ATTACHMENT I

CONCRETE MIX DESIGN USED FOR THE BOND STRENGTH OF PENETRON

MATERIALS	AMOUNTS PER CUBIC YARD
Portland Cement, lbs.	395
New Cem, lbs. (**)	169
Sand, lbs. (*)	1450
Coarse Aggregate, lbs. (*)	1860
Water, gal.	35.9
Water, lbs.	299
W/C Ratio, lbs./lb.	0.53
Slump, inches	4.0
Entrapped Air, %	1.7

(*) SSD basis.
(**) New-Cem is a slag cement.