



Technical Bulletin No. 2

Physical Properties Of IPANEX CONCRETE

BACKGROUND

Ipanex Concrete has been used to waterproof structures since the early 1970's. Technical Bulletin No. 1 presents data showing Ipanex Concrete's resistance to penetration by water under pressure. Architects or engineers specifying Ipanex as an admixture in concrete should have information concerning the effect of the admixture on the physical properties of concrete.

PURPOSE

The purpose of this technical bulletin is to identify and present results of tests performed on Ipanex Concrete using applicable ASTM and AASHTO procedures.

TESTS AND RESULTS

Over the last fifteen years the following tests have been performed on Ipanex Concrete by independent test laboratories. Ipanex Concrete is obtained by adding 13 ounces of Ipanex admixture per 94 pound bag of cement in the concrete mix.

1. Compressive Strength, PSI, average of 7 day strengths 106% of control; average of 28 day strengths 108% of control. These tests are from various locations in the U.S.A. ASTM: C 39
2. Flexural Strength, PSI, average of 3, 7, 28 day strengths 2% greater than control. ASTM: C 78
3. Length Change, 26% less than control. ASTM: C 157
4. Heat of Hydration, Cal/g 13% less than control. ASTM: C 186
5. Capillary Water Intake, 48% of control at ½" submersion; 44% of control at 5½" submersion.
6. Freeze Thaw Durability, 101% of control at 300 cycles. AASHTO: T 161
7. In addition to the above results, Ipanex admixture causes a small increase in slump and air content.

CONCLUSION

Ipanex has a positive effect on all of the physical properties reported above.

Specifiers requiring data for a specific project, contact the Engineering Department, IPA Systems, Inc., at 800-523-3834.