Second International Interactive Symposium on Ultra-High Performance Concrete
Extended Abstract (no paper submission)

Interface Shear Behavior of UHPC

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Extended Abstract

To date, very little research has been conducted on the interface shear behavior of UHPC-class materials. The structural concrete research group at FHWA's Turner-Fairbank Highway Research Center is currently developing an experimental program to evaluate the interface shear behavior of this class of materials. The primary goal of this presentation is to provide some preliminary findings from this line of research. Three types of specimens were employed to evaluate the interface shear behavior: 1) small-scale, beam-like double shear specimens (Figure 1); 2) large-scale, double shear push-off specimens (Figure 2); and 3) more traditional large-scale, single shear push-off specimens (Figure 3). Results will be compared with existing data from tests on high-strength concretes and with existing code provisions. Data collected thus far indicates that the interface shear strength of UHPC is considerably higher than that of traditional high-strength concrete, and that the interface shear strength of UHPC may be higher than previously published results.

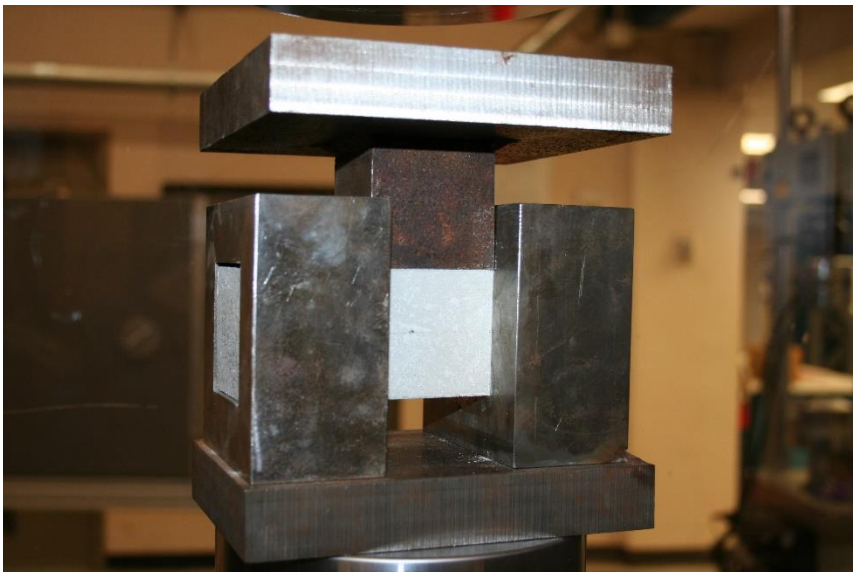

Figure 1. Small-scale, beam-like double shear specimen

Figure 2. Large-scale, double shear push-off specimen

Figure 3. Large-scale, single shear push-off specimen