

**MARBLEHEAD TESTING LABORATORIAIES**  
REPORT 86-901  
ON THE USE OF "HYDROSET" IN CONCRETE MIXES

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This laboratory received a sample of "HYDROSET" from the CHARGAR CORPORATION, Hamden, CT to be used in concrete mixes to test for the effect of "HYDRO-SET" additions in comparison to an untreated mix as well as a competitive material.

The three tests mixtures were run at room temperatures and at 30F. The 30F mixes were mixed at room temperature and lowered to 30F for a period of 8 hours.

The following mix as suggested by the CHARGAR CORPORATION consisted of 2 sand graduations and two stone mixture. This "standard" mix consists of: Sand 29 lbs, stone 45 lbs, Cement 11.5 lbs and water. A Standard mix similar to those used by concrete mix plants for 3000 psi.

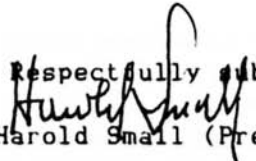
The following table is a summary of the 28 day cylinder tests run.

Compressive strengths at 4% addition level based on cement. (Similar improvement was noted at 2 and 3% levels.)

	Standard Mix	"HYDRO-SET"	Competitor "D"
Room Temp.	3910 PSI	4560 PSI	4250 PSI
8 hours at 30F	3290 PSI	3960 PSI	3650 PSI

**Slumps for "HYDRO-SET" AND Competitor were equivalent.**

5. It is the considered opinion of this laborator that "HYDRO-SET" IS AT LEAST EQUIVALENT TO THE Competitor sample as an additive for concrete mixes.
6. Per the Chargar Corporation request, further tests are being conducted to determine the optimum mix, levels of addition and water content.

Respectfully submitted  
  
Harold Small (President)

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