

OCTOBER 2008 MEETING

Wednesday, October 15, 2008

TECHNICAL PROGRAM

Liteblok™ - The Ultimate High Tech Building Block

Speaker: [Neil Rock](#) with [Cresco Concrete Products, LLC.](#), Houston TX, Tel. 713-589-5043

PRESENTATION SUMMARY

To an audience of about 45 at the HESS Club, Mr. Rock, who has earned a BSME degree and MS in Polymer Science and Engineering, both from Texas A&M University and President and founder of Cresco Concrete Products, LLC gave a slide presentation titled, "Liteblok™ - The Ultimate High Tech Building Block".

Mr. Rock presented his proprietary interlocking block wall system which Cresco supplies under license to Pan Pacific Engineering in Australia. The system is comprised of aerated Portland cement concrete building blocks that are actually a closed-cell foam made by applying compressed air to a liquid foaming agent. Because of the closed-cell property, the blocks have low moisture absorption and good thermal and acoustic properties.



Mr. Rock said the blocks are modular with the regular dimension of 5" x 5" x 10" long and are used for both interior and exterior wall systems as well as landscape/retaining walls. The blocks have two 2" diameter vertical holes for running utilities or grouted steel reinforcement, and are otherwise not bonded to each other during installation except by the adhesion of wall coverings such as stucco or paint. The blocks come in varying densities of 12 - 100 pcf with corresponding 28-day compressive strengths of 101 - 2610 psi and sand/cement ratios of 0.1 to 3.1, depending on the application. Unlike normal concrete, the compressive strength of this product increases linearly with time over the first 12 months.

Mr. Rock said the blocks can be cut with regular tools used in construction of wood framed walls. However connections to the wall must be with masonry type expansion anchors, i.e., screws with plastic inserts. Portland cement reinforced concrete bond beams similar to those used in CMU wall construction are used at the top of the wall and at floor levels. No expansion joints are needed since the joints are not mortared.

According to Mr. Rock, it only takes one-seventh the crew to erect his wall framing system than is needed for conventional wood framing. The City of Houston has not yet permitted a Liteblok™ project but has seen one and are okay with it, according to Mr. Rock. From the presentation it was not obvious how rigid wall coverings such as stucco would perform with Houston's normal foundation movement since the non-grouted walls have built-in flexibility.

To download Mr. Rock's slide presentation, [click here](#).