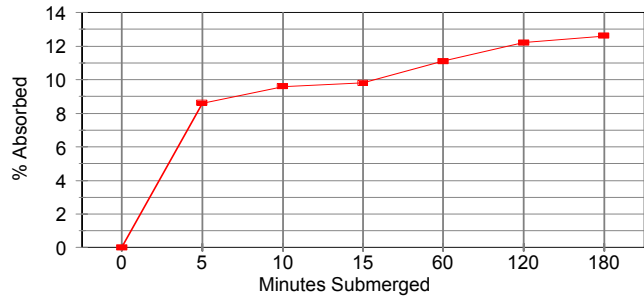


Technical Information Sheet - SATURATION

For Utelite Expanded Shale Lightweight Aggregates to be used in non-pumped concretes such as in precast or prestressed structural lightweight concrete, absorption should be accounted for prior to mixing. This will greatly reduce the occurrence of slump loss and increase the consistency of the batched concrete. Presoaking of lightweight aggregates by the concrete producer is necessary and typically achieved by sprinkling. The amount of water absorbed usually decreases sharply after just a few hours. This is dependent on the effectiveness of the saturation method used.

ABSORPTION



The above chart shows the absorption curve of Utelite Coarse material submerged in water.

Procedure #1:

To be effective, the sprinkling of the aggregate piles should be consistent. The more consistent the moisture content of the aggregate being batched, the more consistent the control of the slump will be. The aggregate storage has to be closely monitored so that unsaturated aggregate never finds its way into the mix. Separate aggregate piles, possibly as many as 3, should be provided, allowing storage and soaking of newly delivered aggregate without interrupting a continuous supply of soaked aggregate. On a rotating basis, aggregate is taken from only one pile while a second pile is being soaked and a third is receiving newly delivered material.

Procedure #2:

The aggregate may also be stored in a shallow pit, approximately two feet deep, and filled with water from constant sprinkling. The material should be turned over frequently by a front-end loader or similar equipment, so that there is submersion of the pile portion that is being sprinkled. Simply submerging the aggregate without turning it over is not recommended. Submerged, the air in the aggregate is trapped and saturation is less effective.

These descriptions of handling aggregates and soaking with sprinklers are consistent with the manner in which Utelite materials are handled with successful results.

UTELize it !



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