



Slump Cone Testing of Portland Cement Plaster Mixes

Slump cone testing of portland cement plaster for determining water-to-cement ratio is not considered applicable. Unlike concrete, where slump testing is common practice, portland cement plaster mixes utilize plasticizing admixtures for workability and pumpability. These components are added in a proven manner to suit the needs of the plastering crew. Not all admixtures affect the wet or “plastic” cement in a consistent manner. Unlike concrete mixes, you cannot get a consistent water-to-cement ratio by measuring slump in plaster.

The plaster crew member mixing the plaster is in constant contact with the nozzle and rod men, who give him feedback as to how well the mix is performing. Minor adjustments are made to compensate for wet sand which affects the mix. Sand makes up to 97% of the plaster mix by weight and is therefore vital in its composition. If the mix is coming out too wet, the material will not stick to the wall or ceiling and dropouts will be frequent. If the material is too dry, the gun will pack and the operation will stop until the situation is resolved.

Plaster is a non-structural cladding and doesn't require the level of precision that goes into structural concrete. Plastering is an artisan craft. Therefore, the applicators and mixers rely on feel more than precision to mix and apply the product.

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