

DISCUSSION

"Performance of Mortars Produced under the Proportion Specification of ASTM C-270-86 a" - J. H. Matthys

Question (S. K. Ghosh, Portland Cement Association):

The author states that four Type S and four Type N masonry cements were chosen, one brand in each case representing an upper end value, one representing a lower end value, and two representing approximately average values of air content, water retention, and compressive strength. The writer wonders if any one product truly represented upper end or lower end values of all three properties. Would the author shed more light on this? Actually, if the author in his closure would make available the three properties for the 21 Type N and the 11 Type S masonry cements considered, indicating the ones selected, that would be of much interest.

Answer (J. H. Matthys, University of Texas at Arlington):

The properties of the four resulting Type S masonry cements initially chosen in the study were:

Cement Brand	Air %	Water Ret.	Compression Strength - psi
1	17.7	81	2175
2	19.0	83	2482
3	19.6	84	2406
4	21.3	84	3383

One represented an upper end, one represented a lower end, and two represented middle values.

The properties of the four resulting Type N masonry cements initially chosen in the study were:

Cement Brand	Air %	Water Ret.	Compression Strength - psi
5	16.0	82	819
6	18.6	85	1050
7	19.1	81	1558
8	26.0	89	951

For Type N masonry cements although an individual cement did not represent the upper end in all categories, the upper, middle, and lower ranges were all represented by the combinations used.