

Strength and drying shrinkage of green concrete

Dear Sir,

This has reference to the paper titled 'Strength and Drying Shrinkage of Concrete' authored by Arun Kumar A., A.S. Santhi and G. Mohan Ganesh, published in The Indian Concrete Journal (February 2014, Vol. 88, No. 2 pp. 28-36).

I have two queries in this work

1. Why the author's used ASTM codes for specification instead of Indian Codes?
2. Authors told bottom ash size vary from 150 to 600 microns but in our normal practice the size of sand may vary from 2.36 to 4.72 mm so how the bottom ash gives the physical property like sand

I appreciate the authors work related to this field. Authors must develop this work with cost effective manner for our society

Thanking you,

With regards.,

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THE AUTHORS' REPLY

Dear Sir,

Thank you for sending the queries. The following replies are given for your reference.

1. All the parameters given in the IS code are covered in ASTM also. Further, some parameters which are required for experimental work, are not covered in Indian standard (Ex.: drying shrinkage is available in AS). Hence ASTM and AS standards are followed in this experimental work.
2. Figure 1 shows the size of both bottom ash and sand that varies from 75 microns to 4.75 mm. But the major particle size distribution of bottom ash is in the range between 150 to 600 microns (Figure 1) and hence the fineness modulus is 1.78 (Table 2). Further this fineness modulus was taken into account and the concrete mix was designed to achieve good strength by utilizing the waste material from thermal power plant effectively.

Thank you,

With Regards,

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