Accepted Manuscript

Using strain to evaluate influence of air content on frost resistance of concrete



Du Peng, Yao Yan, Wang Ling, Xu Dongyu, Zhou Zonghui, Sun Jian, Cheng Xin

PII:	S0165-232X(16)30367-6
DOI:	doi:10.1016/j.coldregions.2018.09.012
Reference:	COLTEC 2668
To appear in:	Cold Regions Science and Technology
Received date:	27 November 2016
Revised date:	21 September 2018
Accepted date:	26 September 2018

Please cite this article as: Du Peng, Yao Yan, Wang Ling, Xu Dongyu, Zhou Zonghui, Sun Jian, Cheng Xin, Using strain to evaluate influence of air content on frost resistance of concrete. Coltec (2018), doi:10.1016/j.coldregions.2018.09.012

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

1	
2	Using Strain to Evaluate Influence of Air Content on Frost Resistance of Concrete
3	
4 5	DU Peng ¹ , YAO Yan ² , WANG Ling ³ , XU Dongyu ^{4,*} mse_xudy@ujn.edu.cn, ZHOU Zonghui ⁵ , SUN Jian ⁶ , CHENG Xin ^{7,*} ujn_chengxin@ujn.edu.cn
6	
7	
8	
9	¹ Shandong Provincial Key Laboratory of Preparation & Measurement of Building Materials, University of
10	Jinan, Jinan, China
11	² States Key Laboratory of Green Building Materials, China Building Materials Academy, Beijing, China
12	³ States Key Laboratory of Green Building Materials, China Building Materials Academy, Beijing, China
13	⁴ Shandong Provincial Key Laboratory of Preparation & Measurement of Building Materials, University of Jinan,
14	Jinan, China
15	
16	Shandong Provincial Key Laboratory of Preparation & Measurement of Building Materials, University of Jinan,
17 19	Jinan, China
18	⁶ Shandong Lobe Building Materials Co. Ltd. Laiwu, China
20	Shandong Lobe Building Waterias Co. Etd, Laiwu, China
21	⁷ Shandong Provincial Key Laboratory of Preparation & Measurement of Building Materials, University of Jinan,
22	Jinan, China
23	
24	Corresponding author.
25	
26	Abstract: In order to ensure proper frost resistance, a design of artificial air-void system with defined
27	geometric structure is needed in concrete. Strain, which may have certain inherent advantages compared to
28	traditional test parameters, such as real-time nondestructive monitoring, more accurate and continuous with
29	little error that is caused by manual intervention and so on, was used to evaluate influence of air content on

Download English Version:

https://daneshyari.com/en/article/11016739

Download Persian Version:

https://daneshyari.com/article/11016739

Daneshyari.com