## Accepted Manuscript

A confinement-dependent load-induced thermal strain constitutive model for concrete subjected to temperatures up to 500°C

Giacomo Torelli, Partha Mandal, Martin Gillie, Van-Xuan Tran

 PII:
 S0020-7403(17)33737-2

 DOI:
 10.1016/j.ijmecsci.2017.12.054

 Reference:
 MS 4118

To appear in: International Journal of Mechanical Sciences

Received date:30 November 2016Revised date:30 November 2017Accepted date:31 December 2017

Please cite this article as: Giacomo Torelli, Partha Mandal, Martin Gillie, Van-Xuan Tran, A confinement-dependent load-induced thermal strain constitutive model for concrete subjected to temperatures up to 500°C, *International Journal of Mechanical Sciences* (2018), doi: 10.1016/j.ijmecsci.2017.12.054

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.



Highlights

- LITS development for temperatures up to 500°C is strongly confinement-dependent
- A confinement-dependent LITS model for this temperature range is presented
- The model is numerically implemented, validated applied to a test case
- The behaviour of nuclear vessels is affected by the confinement-dependency of LITS

Download English Version:

https://daneshyari.com/en/article/7173664

Download Persian Version:

https://daneshyari.com/article/7173664

Daneshyari.com