Accepted Manuscript

A further generalized thickness-dependent non-Fickian moisture absorption model using plain woven epoxy composites

M. Johar, H.S. Kang, W.W.F. Chong, K.J. Wong

PII: S0142-9418(18)30541-5

DOI: 10.1016/j.polymertesting.2018.06.013

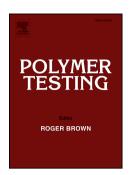
Reference: POTE 5510

To appear in: Polymer Testing

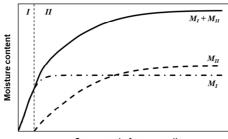
Received Date: 2 April 2018
Revised Date: 30 May 2018
Accepted Date: 7 June 2018

Please cite this article as: M. Johar, H.S. Kang, W.W.F. Chong, K.J. Wong, A further generalized thickness-dependent non-Fickian moisture absorption model using plain woven epoxy composites, *Polymer Testing* (2018), doi: 10.1016/i.polymertesting.2018.06.013.

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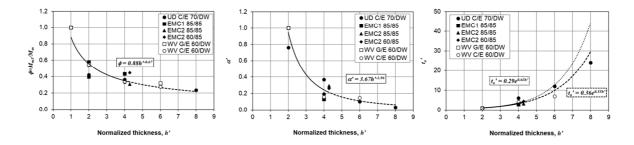
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$$M(t) = \phi M_m \left\{ 1 - \exp\left[-7.3 \left(\frac{D_z t}{h^2} \right)^{0.75} \right] \right\} + (1 - \phi) M_m \left[1 - \left\{ \exp\left[\left(\alpha \left\langle t - t_o \right\rangle \right)^{0.75} \right] \right\} \right]$$

Square root of exposure time

Thickness-dependent non-Fickian moisture absorption model



Normalized non-Fickian parameters with respect to normalized thickness for various epoxy based materials



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