

**ERRATUM**

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# Simulation of water permeability and water vapor diffusion through hardened cement paste

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Unfortunately, Tables 1 and 2 as well as the second sentence of the Theorem 1 were published with errors. The publishers apologizes for these mistakes. The correct text is printed here.

**Theorem 1 (Simple Point)** *A black point  $p \in B$  is a (26-) simple point if and only if the following conditions hold:*

1.  $N_{26}^*(p) \cap B \neq \emptyset$
2.  $N_{26}^*(p) \cap B$  is 26-connected
3.  $\bar{B} \cap N_6^*(p) \neq \emptyset$
4.  $\bar{B} \cap N_6^*(p)$  is 6-connected in  $\bar{B} \cap N_{18}^*(p)$ .

If a black point is a simple point it will be deleted (converted to a white point) in the course of the thinning procedure. A black point  $p$  is termed *border point* if condition 3 in Theorem 1 holds. A border point  $p$  is called a *U-border point* if the point is marked by “U” in Fig. 4. Similarly defined are D-, N-, S-, E-, and W-border points. Moreover a black point  $p$  is called *end point* if it has exactly one black 26-neighbor ( $|N_{26}^*(p) \cap B| = 1$ ).

**Table 1** Calculated permeability coefficient of the hardened cement paste investigated ( $w/c = 0.45$ , degree of hydration  $m = 0.67$ )

$L$ (nm)	$A$ (nm <sup>2</sup> )	$\Delta p$ (bar)	$Q$ (kg/s)	$k$	
				m <sup>2</sup>	m/s
4920	5120 <sup>2</sup>	1.0	$5.1 \cdot 10^{-14}$	$9.5 \cdot 10^{-20}$	$9.3 \cdot 10^{-13}$

**Table 2** Experimental values of the permeability coefficient

$w/c$	$m$	$k$		Ref.
		(m <sup>2</sup> )	(m/s)	
0.4	0.6	$4.2 \cdot 10^{-21}$	$4.5 \cdot 10^{-14}$	[6]
0.5	0.6	$1.9 \cdot 10^{-19}$	$1.8 \cdot 10^{-12}$	[6]
0.45	0.67	$9.5 \cdot 10^{-20}$	$9.3 \cdot 10^{-13}$	[19]

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