

Supplementary Materials

The Effect of Crystalline Waterproofing Admixtures on the Self-Healing and Permeability of Concrete

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Table S1. Crack width before and after self-healing

Mix ID	Specimen number	Crack ID	Initial crack width [mm]	Initial crack pattern	Crack width after selfhealing [mm]	Reduction in crack width (%)	Crack reduction pattern
M-0.45-R	1	1	0.25	0.1 mm ≤ width <0.2 mm – 9 cracks	0.2	20	0% ≤ width reduction <20 % - 7 cracks
		2	0.55		0.45	18	
		3	0.1		0.1	0	
		4	0.2		0.2	0	
		5	0.3		0.2	33	
		6	0.2		0.2	0	
	2	1	0.5	0.2 mm ≤ width <0.3 mm – 6 cracks	0.45	10	20% ≤ width reduction <90 % - 5 cracks
		2	0.25	0.3 mm ≤ width <0.4 mm – 1 crack	0.25	0	
		3	0.1	0.4 mm ≤ width <0.5 mm – 0 crack	0	100	
		4	0.1	0.5 mm ≤ width – 2 cracks	0	100	
		5	0.1		0.1	0	
		6	0.1		0	100	
	3	1	0.15	0.5 mm ≤ width – 2 cracks	0.1	33	90% ≤ width reduction <100 % - 6 cracks
		2	0.1		0	100	
		3	0.25		0.1	60	
		4	0.15		0	100	
		5	0.1		0	100	
		6	0.25		0.15	40	
M-0.45-CWA	1	1	0.1	0.1 mm ≤ width <0.2 mm – 10 cracks	0	100	0% ≤ width reduction <20 % - 4 cracks
		2	0.3		0.3	0	
		3	0.1		0	100	
		4	0.2		0.2	0	
		5	0.25		0.2	20	
		6	0.5		0.5	0	
	2	1	0.1	0.2 mm ≤ width <0.3 mm – 4cracks	0	100	20% ≤ width reduction <90 % - 4 cracks
		2	0.1	0.3 mm ≤ width <0.4 mm – 3 cracks	0	100	
		3	0.15	0.4 mm ≤ width <0.5 mm – 0crack	0.1	60	
		4	0.25	0.5 mm ≤ width – 1crack	0.25	17	
		5	0.3		0	100	
		6	0.15		0	100	
	3	1	0.15	0.5 mm ≤ width – 1crack	0	100	90% ≤ width reduction <100 % - 10 cracks
		2	0.3		0.15	50	
		3	0.1		0	100	
		4	0.1		0	100	
		5	0.2		0.15	25	
		6	0.1		0	100	

M-0.55 - R	1	1	0.3		0.2	33	
		2	0.6		0.5	17	
		3	0.1		0.1	0	
		4	0.15		0.1	33	
		5	0.2		0.1	50	
		6	0.15	0.1 mm ≤ width < 0.2 mm - 12 cracks	0.1	33	
	2	1	0.1	0.2 mm ≤ width < 0.3 mm - 4 cracks	0	100	0% ≤ width reduction < 20% - 2 cracks
		2	0.2	0.3 mm ≤ width < 0.4 mm - 1 crack	0.15	25	20% ≤ width reduction < 90% - 9 cracks
		3	0.1	0.4 mm ≤ width < 0.5 mm - 0 crack	0	100	90% ≤ width reduction < 100% - 7 cracks
		4	0.1		0	100	
		5	0.1		0	100	
		6	0.15		0.1	33	
	3	1	0.2	0.5 mm ≤ width - 1 crack	0.1	50	
		2	0.1		0	100	
		3	0.25		0.2	20	
		4	0.15		0	100	
		5	0.15		0.1	33	
		6	0.1		0	100	
M-0.55-CWA	1	1	0.1		0	100	
		2	0.3		0.15	50	
		3	0.35		0.2	43	
		4	0.45		0.35	22	
		5	0.15	0.1 mm ≤ width < 0.2 mm - 11 cracks	0.1	33	
		6	0.3	0.2 mm ≤ width < 0.3 mm - 2 cracks	0.25	17	
	2	1	0.15	0.3 mm ≤ width < 0.4 mm - 4 cracks	0	100	0% ≤ width reduction < 20% - 1 cracks
		2	0.15	0.4 mm ≤ width < 0.5 mm - 1 crack	0	100	20% ≤ width reduction < 90% - 7 cracks
		3	0.1		0	100	90% ≤ width reduction < 100% - 10 cracks
		4	0.15		0	100	
		5	0.25		0.15	40	
		6	0.1		0	100	
	3	1	0.1	0.5 mm > width - 0 crack	0	100	
		2	0.3		0.1	67	
		3	0.1		0	100	
		4	0.2		0.15	25	
		5	0.1		0	100	
		6	0.1		0	100	

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