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Research article

Performance test of road fly ash concrete under temperate climate and high salt environment in Asia

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Supplementary

Table S1. Compressive strength of concrete with different fly ash dosages (n=3, mean ± SD).

Fly ash dosage (wt%)	Parallel sample 1 (MPa)	Parallel sample 2 (MPa)	Parallel sample 3 (MPa)	Mean (MPa)	Standard deviation (MPa)	Coefficient of variation (CV, %)
0	45.5	45.3	45.1	45.3	0.20	0.44
1	45.8	45.7	45.5	45.7	0.15	0.33
5	46.6	46.7	46.7	46.7	0.06	0.13
10	47.5	47.3	47.6	47.5	0.15	0.32
15	48.4	48.3	48.5	48.4	0.10	0.21
20	49.1	49.2	49.3	49.2	0.10	0.20
25	50.7	50.9	50.11	50.6	0.45	0.89
30	52.1	52.3	52.4	52.3	0.15	0.29
35	51.8	51.7	51.8	51.8	0.06	0.12
40	51.4	51.2	51.5	51.4	0.15	0.29

Note: SD = standard deviation; CV = (SD/Mean) × 100%.

Table S2. Flexural strength of concrete with different fly ash dosages (n=3, mean ± SD).

Fly ash dosage (wt%)	Parallel sample 1 (MPa)	Parallel sample 2 (MPa)	Parallel sample 3 (MPa)	Mean (MPa)	Standard deviation (MPa)	Coefficient of variation (CV, %)
0	6.43	6.41	6.44	6.43	0.015	0.23
5	6.56	6.57	6.54	6.56	0.015	0.23
10	7.06	7.09	7.05	7.07	0.021	0.30
15	7.21	7.23	7.19	7.21	0.020	0.28
20	7.36	7.32	7.38	7.35	0.031	0.42
25	7.56	7.53	7.57	7.55	0.021	0.28
30	8.61	8.58	8.63	8.61	0.025	0.29
35	8.34	8.36	8.32	8.34	0.020	0.24
40	8.14	8.12	8.15	8.14	0.015	0.18

Note: SD = standard deviation; CV = (SD/Mean) × 100%.

Table S3. Fluidity of concrete slurry with different fly ash dosages (n=3, mean ± SD).

Fly ash dosage (wt%)	Parallel sample 1 (MPa)	Parallel sample 2 (MPa)	Parallel sample 3 (MPa)	Mean (mm)	Standard deviation (mm)	Coefficient of variation (CV, %)
0	208	207	205	207	1.53	0.74
1	212	213	215	213	1.53	0.72
5	222	224	221	222	1.53	0.69
10	231	234	232	232	1.53	0.66
15	237	238	240	238	1.53	0.64
20	243	244	246	244	1.53	0.63
25	247	248	247	247	0.58	0.23
30	252	251	253	252	1.00	0.40
35	254	255	256	255	1.00	0.39
40	256	255	257	256	1.00	0.39

Note: SD = standard deviation; CV = (SD/Mean) × 100%.