

Article

Composite Cements Using Ground Granulated Blast Furnace Slag, Fly Ash, and Geothermal Silica with Alkali Activation

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Table S1. Compressive strength results activated with 4% of Na₂Oeq, compared to OPC.

Sample	Activator	Compressive Strength (MPa)				
		3	7	14	28	90
OPC 100%		20.1	24.4	34.6	36.8	37.17
50OPC-50GGBFS		7.2	16.2	21.1	23.1	30.03
50OPC-40GGBFS-5FA-5GS		8.8	16.5	22.9	24.5	32.54
50OPC-35GGBFS-10FA-5GS	Na ₂ SiO ₃	6.9	16.4	23	21.3	32.27
50OPC-30GGBFS-10FA-10GS		9.1	19.1	27.4	29.3	35.6
50OPC-25GGBFS-15FA-10GS		9.5	20.5	25.4	28.6	33.61
50OPC-50GGBFS		10.1	14.1	16.5	19.1	22.95
50OPC-40GGBFS-5FA-5GS		10.2	12.6	14.9	19.1	22.82
50OPC-35GGBFS-10FA-5GS	NaOH	6.6	12.8	15.6	17.7	21.36
50OPC-30GGBFS-10FA-10GS		7.8	12	14.5	17.5	23.31
50OPC-25GGBFS-15FA-10GS		13	11.4	14.6	16.35	19.92
50OPC-40GGBFS-5FA-5GS		16.1	27.2	32	39.25	-
50OPC-30GGBFS-10FA-10GS	Na ₂ SO ₄	13.1	23.6	29	35.19	-
50OPC-25GGBFS-15FA-10GS		12.3	22.1	27.1	34.31	-

Table S2. Compressive strength results activated with 4% of Na₂Oeq, compared to OPC.

Sample	Activator	Compressive Strength (MPa)				
		3	7	14	28	90
OPC 100%	Na ₂ SiO ₃	20.1	24.4	34.6	36.8	37.17
50OPC-50GGBFS		5.4	8.9	13.5	20	26.24
50OPC-35GGBFS-10FA-5GS		6.2	11.4	17.7	22.8	29.58
50OPC-40GGBFS-5FA-5GS		6.6	11.8	18.4	21.3	29.54
50OPC-25GGBFS-15FA-10GS		7.4	14.2	20.9	21.9	25.49
50OPC-30GGBFS-10FA-10GS		4	9.4	13.4	15.6	21.06
50OPC-50GGBFS	NaOH	10.7	13.6	14.9	18.2	21.72
50OPC-35GGBFS-10FA-5GS		9.3	10.8	13.1	15.3	15.77
50OPC-40GGBFS-5FA-5GS		11.2	12.8	15.9	16.4	24.42
50OPC-25GGBFS-15FA-10GS		9.4	11.2	15.9	16.5	20.58
50OPC-30GGBFS-10FA-10GS		10.5	13.5	16.1	14.6	19.14
70OPC-20GGBFS-0FA-10GS		25.4	31.7	34.2	40.65	-
70OPC-10GGBFS-10FA-10GS		25.21	29.12	35	39.65	-
70OPC-30GGBFS		18.6	21.8	24.8	30.6	-