C-A-S-H end-member model:

Phases	V° (cm^3 mol^{-1})	$\Delta H_f°$ (kJ mol^{-1})	$\Delta G_f°$ (kJ mol^{-1})	S° (J mol^{-1} K^{-1})	Cp° (J mol^{-1} K^{-1})	Reference
5CA, $C_{1.25}A_{0.125}S_1H_{1.625}$	57.3	−2491	−2293	163	177	[1]
INFCA, $C_1A_{0.15625}S_{1.1875}H_{1.65625}$	59.3	−2551	−2343	154	181	[1]
JenD, $C_{1.5}S_{0.67}H_{2.5}$[a]	80.6	−2401	−2169	173	209	[2]
T2C*, $C_{1.5}S_1H_{2.5}$[b]	80.6	−2721	−2298	167	237	[3]
T5C, $C_{1.25}S_{1.25}H_{2.5}$	79.3	−2780	−2517	160	234	[1]
TobH, $C_1S_{1.5}H_{2.5}$	85.0	−2831	−2560	153	231	[1]

***Adapted from Myers et al 2014.**

Pitzer parameters used for C-A-S-H modelling in presence of NaOH and KOH:

Species A	Species B	Parameter_type	Interaction Value	Reference
AlO2-	K+	B0	0.094	[4]
AlO2-	K+	B1	0.32	[4]
AlO2-	K+	C0	-0.0012	[1]
Ca+2	AlO2-	B0	0.315098	[5]
Ca+2	AlO2-	B1	1.687621	[2]
Ca+2	HSiO3-	B0	0.342599	[2]
Ca+2	HSiO3-	B1	1.710847	[2]
Ca+2	OH-	B1	-0.3727	[6]
Ca+2	OH-	B2	-11.052	[3]
Ca+2	OH-	C0	-0.0092	[3]
Ca+2	SiO3-2	B0	0.1960	[2]
Ca+2	SiO3-2	B1	2.4181	[2]
K+	HSiO3-	B0	0.1160	[2]
K+	HSiO3-	B1	0.4546	[2]
K+	OH-	C0	0.0041	[7]
K+	SiO3-2	B0	0.0783	[2]
K+	SiO3-2	B1	0.5166	[2]
Na+	AlO2-	B0	-0.0083	[8]
Na+	AlO2-	B1	0.071	[5]
Na+	AlO2-	C0	9.77E-03	[5]
Na+	HSiO3-	B0	0.1391	[2]
Na+	HSiO3-	B1	0.4681	[2]
Na+	OH-	C0	0.0044	[5]
Na+	SiO3-2	B0	0.0877	[2]
Na+	SiO3-2	B1	0.5304	[2]
OH-	Ca+2	B0	-0.1421	[3]
OH-	K+	B0	0.1611	[9]
OH-	K+	B1	0.137	[9]
OH-	Na+	B0	0.0864	[5]
OH-	Na+	B1	0.253	[5]

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