

Key variable as simulated	Unit	Control run value
Atmospheric CO ₂ mixing ratio	(ppm)	277.6
POC export production (pre-industrial)	(Gt C yr ⁻¹)	9.25
CaCO ₃ export production (pre-industrial)	(Gt C yr ⁻¹)	1.07
Coefficient <i>A</i> for $k_d^{\text{first guess}}$	–	5.8
Coefficient <i>B</i> for $k_d^{\text{first guess}}$	–	0.4
Coefficient C_{CaCO_3}	–	3.0
Coefficient C_{POC}	–	0.3
Coefficient C_{clay}	–	2.3