

	γ ($\text{kN}\cdot\text{m}^{-3}$)	φ' ($^{\circ}$)	c' (kPa)	θ_s ($\text{m}^3\cdot\text{m}^{-3}$)	θ_r ($\text{m}^3\cdot\text{m}^{-3}$)	α_G (kPa^{-1})	K_s ($\text{m}\cdot\text{s}^{-1}$)	D_0 ($\text{m}\cdot\text{s}^{-1}$)
Geological unit								
Monte Arzolo Sandstones (sd)	17.9 (1.2)	26 (4)	1.9 (1.1)	0.44 (0.05)	0.06 (0.05)	0.012 (0.010)	$1.5\cdot 10^{-6}$ ($0.5\cdot 10^{-6}$)	$3.0\cdot 10^{-6}$ ($1\cdot 10^{-6}$)
Rocca Ticozzi Conglomerates (sd)	17.7 (1.5)	27 (4)	1.5 (3.5)	0.43 (0.07)	0.05 (0.04)	0.012 (0.010)	$1.5\cdot 10^{-6}$ ($0.5\cdot 10^{-6}$)	$3.0\cdot 10^{-6}$ ($1\cdot 10^{-6}$)
Sant'Agata Fossili Marls (sd)	18.0 (1.5)	26 (4)	2.0 (3.0)	0.46 (0.05)	0.08 (0.06)	0.014 (0.012)	$1.4\cdot 10^{-6}$ ($0.6\cdot 10^{-6}$)	$2.8\cdot 10^{-6}$ ($1\cdot 10^{-6}$)
Gessoso-Solfifera Formation (sd)	17.8 (0.8)	24 (3)	1.8 (3.0)	0.48 (0.04)	0.08 (0.07)	0.019 (0.013)	$1.4\cdot 10^{-6}$ ($0.5\cdot 10^{-6}$)	$2.8\cdot 10^{-6}$ ($1\cdot 10^{-6}$)
Pedological unit								
BRS1 (sd)	17.0 (1.1)	24 (6)	1.2 (1.2)	0.46 (0.04)	0.07 (0.06)	0.014 (0.011)	$1.5\cdot 10^{-6}$ ($0.5\cdot 10^{-6}$)	$3.0\cdot 10^{-6}$ ($1\cdot 10^{-6}$)
FGE1 (sd)	17.5 (1.2)	26 (2)	2.0 (3.0)	0.49 (0.07)	0.09 (0.05)	0.022 (0.018)	$1.5\cdot 10^{-6}$ ($0.5\cdot 10^{-6}$)	$3.0\cdot 10^{-6}$ ($1\cdot 10^{-6}$)
ILM1/RUM1 (sd)	18.1 (1.2)	26 (4)	1.5 (4.2)	0.43 (0.04)	0.05 (0.05)	0.012 (0.010)	$1.4\cdot 10^{-6}$ ($0.5\cdot 10^{-6}$)	$2.8\cdot 10^{-6}$ ($1\cdot 10^{-6}$)
MRL1 (sd)	18.1 (1.5)	25 (3)	1.5 (3.4)	0.45 (0.05)	0.08 (0.06)	0.012 (0.009)	$1.4\cdot 10^{-6}$ ($0.5\cdot 10^{-6}$)	$2.8\cdot 10^{-6}$ ($1\cdot 10^{-6}$)

Table 5. Mean and standard deviation (sd) values of the soil parameters used as input data in TRIGRS-Unsaturated. The standard deviation values are in parentheses.