Table 6.

Summary of input parameters and results from iSALE-2D numerical parameter study. The layer thickness was $H \cong 12.5$ mm.

Parameter varied	**Upper layer**	**Bottom layer**	**Constants**	D_{in}/D_{out}	D_{out}/H
Control case	$\rho_0 = 2.65$ g/cm^3 $\phi = 40\%$ $f = 0.50$ $\chi = 0.5$ A = 36 GPa	$\rho_{0B} = 7.8$ g/cm^3 $\phi_B = 44\%$ $f_B = 0.65$ $\chi_B = 0.8$ $A_B = 128$ GPa	-	0.79	21.84
Density, ρ	$\rho_0 = 1.8$ g/cm^3	$\rho_{0B} = 4.65$ g/cm^3	$\phi = \phi_B = 44\%$ $f = f_B = 0.65$ $\chi = \chi_B = 0.8$ $A = A_B = 36$ GPa	0.82	22.81
Porosity, ϕ	$\phi = 50\%$	$\phi_B = 0\%$	$\rho_0 = \rho_{0B} = 2.65$ g/cm^3 $f = f_B = 0.65$ $\chi = \chi_B = 0.8$ $A = A_B = 36$ GPa	0.86	25.54
Friction, f	$f = 0.4$	$f_B = 1.0$	$\rho_0 = \rho_{0B} = 2.65$ g/cm^3 $\phi = \phi_B = 44\%$ $\chi = \chi_B = 0.8$ $A = A_B = 36$ GPa	0.75	21.20
Sound speed ratio, χ	$\chi = 0.3$	$\chi_B = 1.0$	$\rho_0 = \rho_{0B} = 2.65$ g/cm^3 $\phi = \phi_B = 44\%$ $f = f_B = 0.65$ $A = A_B = 36$ GPa	0.90	27.67
Bulk modulus, A	A = 1 GPa	$A_B = 36$ GPa	$\rho_0 = \rho_{0B} = 2.65$ g/cm^3 $\phi = \phi_B = 44\%$ $f = f_B = 0.65$ $\chi = \chi_B = 0.8$	0.90	27.13