**Table 3**.

*iSALE target input parameters for the Boeing centrifuge and the EPIC simulations.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Experiment**  **Description** | **Boeing centrifuge** | | **EPIC** | |
| **Quartz sand** | **Chromite sand** | **Beach sand** | **Iron grit** |
| Equation of state | ANEOS quartzite | ANEOS iron | ANEOS quartzite | ANEOS iron |
| Strength model | Drucker-Prager | Drucker-Prager | Drucker-Prager | Drucker-Prager |
| Poisson ratio, *ν* | 0.30 | 0.30 | 0.30 | 0.30 |
| Strength parameters | | | | |
| Damage strength at zero pressure (kPa), *Y0* | 0 | 0 | 0 | 0 |
| Strength at infinite pressure (GPa), *Yinf* | 1.0 | 10 | 0.1 | 10 |
| Internal friction coefficient, *f* | 0.63 | 1.00 | 0.50 | 0.65 |
| Porosity parameters (ε-α) | | | | |
| Initial porosity, *ϕ* | 44% | 20% | 40% | 44% |
| Initial distension, *α0* | 1.77 | 1.25 | 1.68 | 1.80 |
| Distension at transition to power-law, *αx* | 1.29b | 1.15c | 1.29b | 1.15c |
| Elastic volumetric strain threshold, *εe0* | -1.5x10-2 | -1.0x10-4 | -1.5x10-2 | -1.0x10-4 |
| Exponential compaction rate, *κ* | 0.99 | 0.98 | 0.99 | 0.95 |

aMelosh, 2007; bWunnemann et al., 2016; cCollins et al., 2011.