

Tables in the supplementary materials

Lithotype	z (m)	γ (kN/m ³)	V _s (m/s)	V _p (m/s)	ν	G ₀ (MPa)	D ₀ (%)	Reference curves G(γ)/G ₀ and D(γ)
MLec	0-15	15.66	250	476	0.31	99.77	1.5	LAC_DH1_C1
GMep sx	0-15	17.06	225	551	0.40	88.04	3.5	FO_DH1_C2
GMep dx	0-6							
RIzz sx	0-6	17.00	215	506	0.39	80.10	3.0	Anthropogenic deposits from Benevento (Italy) (Santucci de Magistris et al., 2014)
RIzz sx	0-5							
SMep GR 1	0-15	16.18	225	551	0.40	83.50	1.0	CAS_DH2_C2
SMep GR 2	0-50		400	980		263.89		
SMep GR 3	50-80		570	1396		535.87		
SMep GR 4	80-130		750	1837		927.75		
SMep GS	0-80	16.18	370	906	0.40	225.79	1.0	CAS_DH2_C2
SMep	0-25	15.59	400	1024	0.41	254.27	1.0	CAS_DH1_C2
SMpc	0-50	14.50	470	933	0.33	326.51	0.5	Licata et al. (2015)
SMtm	0-5	15.66	250	612	0.40	99.77	1.5	LAC_DH1_C1
SFCO	20-40	20.24	700	1422	0.34	1010.97	2.0	FO_DH1_C4
SFGRS	0-70	17.89	650	1263	0.32	770.49	0.5	<i>Tufo giallo napoletano</i> (Vinale, 1988)
Mt Epomeo Green Tuff and tuffite (outside of Maio graben)								
Seismic bedrock	30 -	17.89	1000	1944	0.32	1823.65	0.5	Linear visco-elastic

Table S2A

Lithotype	z (m)	γ (kN/m ³)	V _s (m/s)	V _p (m/s)	ν	G ₀ (MPa)	D ₀ (%)	Reference curves G(γ)/G ₀ and D(γ)
SMtm	0-17	14.74	230	506	0.37	79.48	1.5	LAC_DH1_C1
CLpl (upper portion)	4-10	15.94	200	735	0.46	64.99	0.9	LAC_DH1_C3
CLpl (lower portion)	10-18	15.94	310	735	0.46	64.99	0.9	LAC_DH1_C3
SWzz	18-40	16.31	480	1370	0.43	383.06	1.0	LAC_DH1_C4
GCep	0-22	17.06	300	735	0.40	150.09	3.5	FO_DH1_C2
GMep	0-46	16.36	450	1102	0.40	304.27	3.5	FO_DH1_C2
SFCO	51-71	17.89	670	1751	0.34	926.17	2.0	FO_DH1_C4
SMep	0-13	16.00	230	479	0.35	86.28	1.0	CAS_DH2_C2
SFGRS (marine tuffite)	71-91	17.89	670	1302	0.32	818.64	1.6	LAC_DH1_C5
Seismic bedrock	0-8	17.89	980	1905	0.32	1751	0.5	Linear visco-elastic
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Table S2B

Lithotype	z (m)	γ (kN/m ³)	V _s (m/s)	V _p (m/s)	ν	G ₀ (MPa)	D ₀ (%)	Reference curves G(γ)/G ₀ and D(γ)
SMLh	0-30	16.62	274	544	0.33	127.19	1.01	LAC_DH1_C4
GMep (lower)	0-50	16.36	320	784	0.40	170.77	3.51	FO_DH1_C2
GMep (upper)	0-15	17.06	268	656	0.40	124.90	3.51	FO_DH1_C2
GMep (landslide)	0-5	17.06	180	441	0.40	56.34	3.51	FO_DH1_C2
SMsp	40-60	18.97	530	1298	0.40	543.19	2.01	FO_DH1_C4
SFGRS 1 (Citara Tuff)	40-90	17.89	456	886	0.32	379.20	0.50	<i>Tufo giallo napoletano</i> Vinale (1988)
SFGRS 2	0-150	17.89	550	1069	0.32	551.65	0.50	<i>Tufo giallo napoletano</i> Vinale (1988)
Seismic bedrock	140-	17.89	950	1846	0.32	1645.84	0.50	Linear visco-elastic

Table S2C