

Identification of material property: Hardness (50), Damping (Small)

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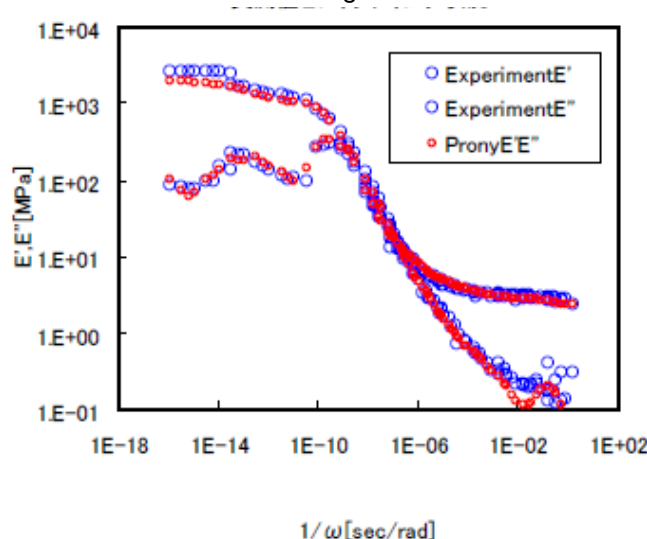
Young's Modulus [N/mm ²]	Poisson's Ratio
2.16876E+03	4.99000E-01

G_i [N/mm ²]	t_i [sec]
6.41287E+01	1.06103E-16
4.58441E+01	3.18310E-15
9.53423E+01	3.18310E-14
1.07747E+02	3.18310E-13
5.61595E+01	3.18310E-12
1.23412E-09	3.18310E-11
2.06789E+02	1.59155E-10
1.23302E+02	1.59155E-09
1.76626E+01	1.59155E-08
3.31088E+00	1.59155E-07
1.36125E+00	1.59155E-06
4.04600E-01	1.59155E-05
2.54515E-01	1.59155E-04
1.14842E-01	1.59155E-03
2.24791E-02	1.59155E-02
1.35803E-01	1.59155E-01

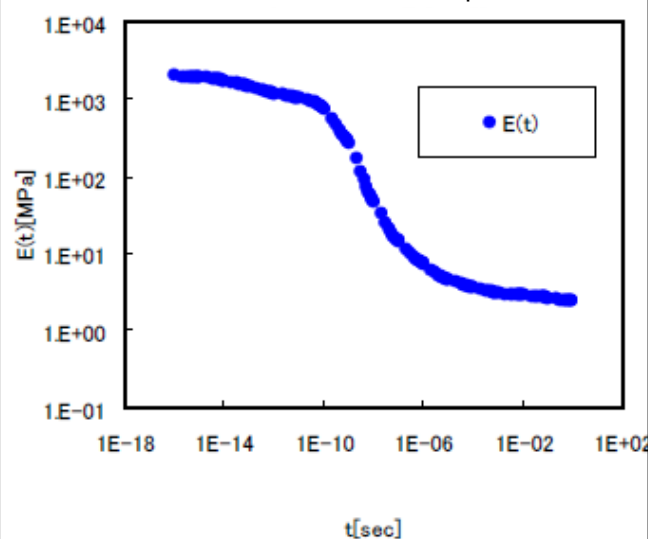
Prony series

$$G(t) = G^\infty + \sum_{n=1}^N G^n \exp\left(-\frac{t}{\lambda_d^n}\right)$$

Actual measurement along with fitted curve

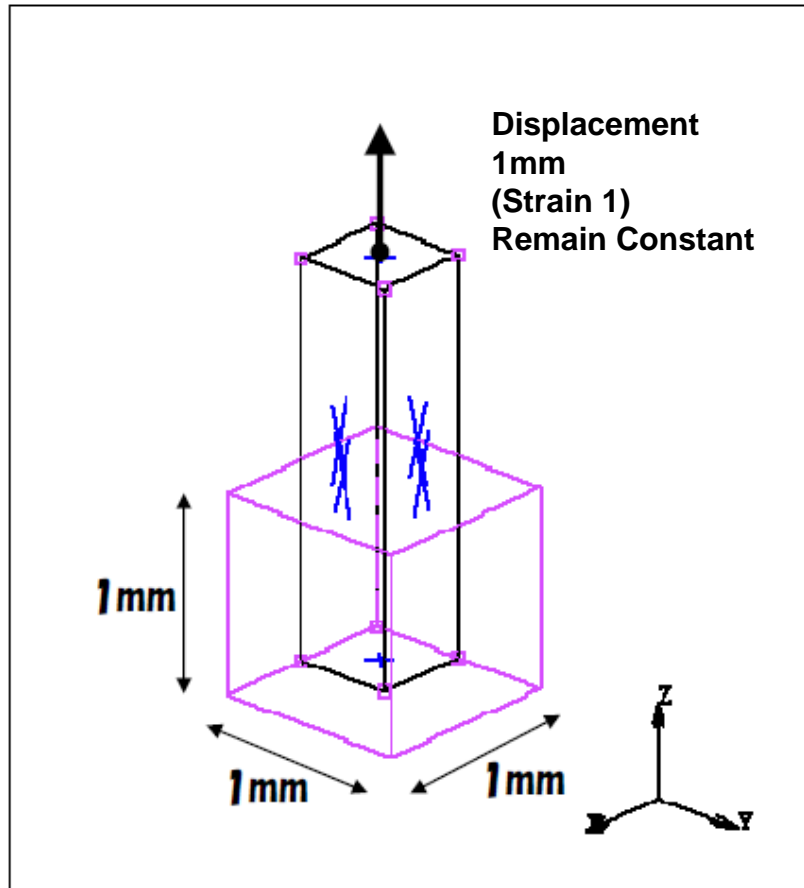


Stress-relaxation curve with identified parameters

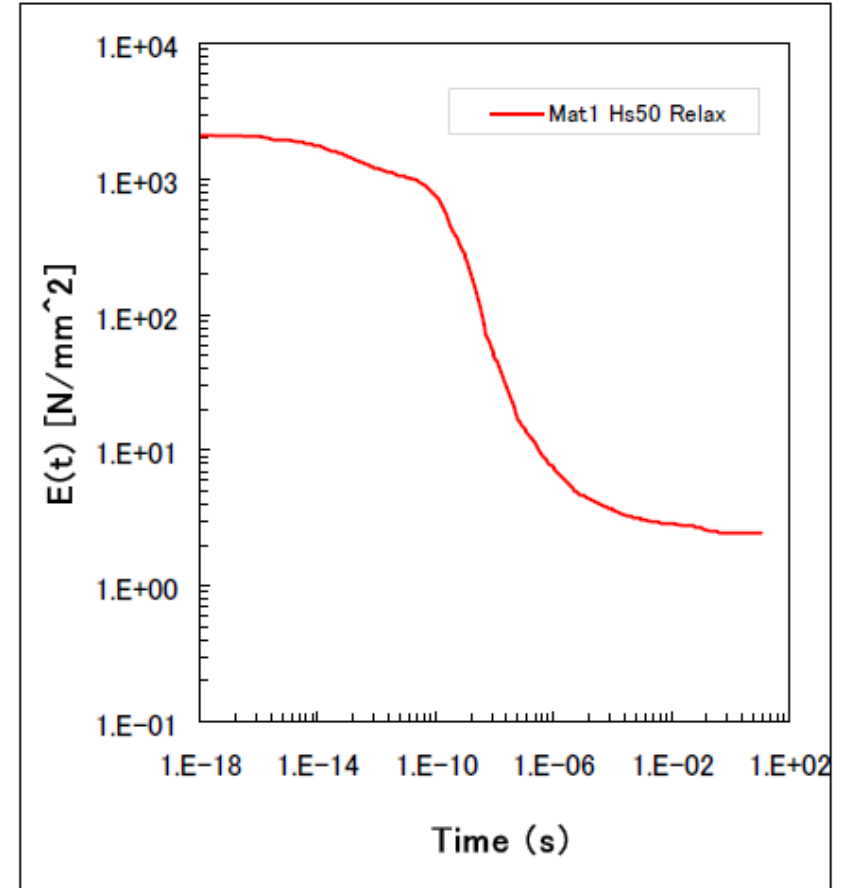


Stress-relaxation analysis : mat1_hs50_relax_marc.dat Hardness (50), Damping (Small)

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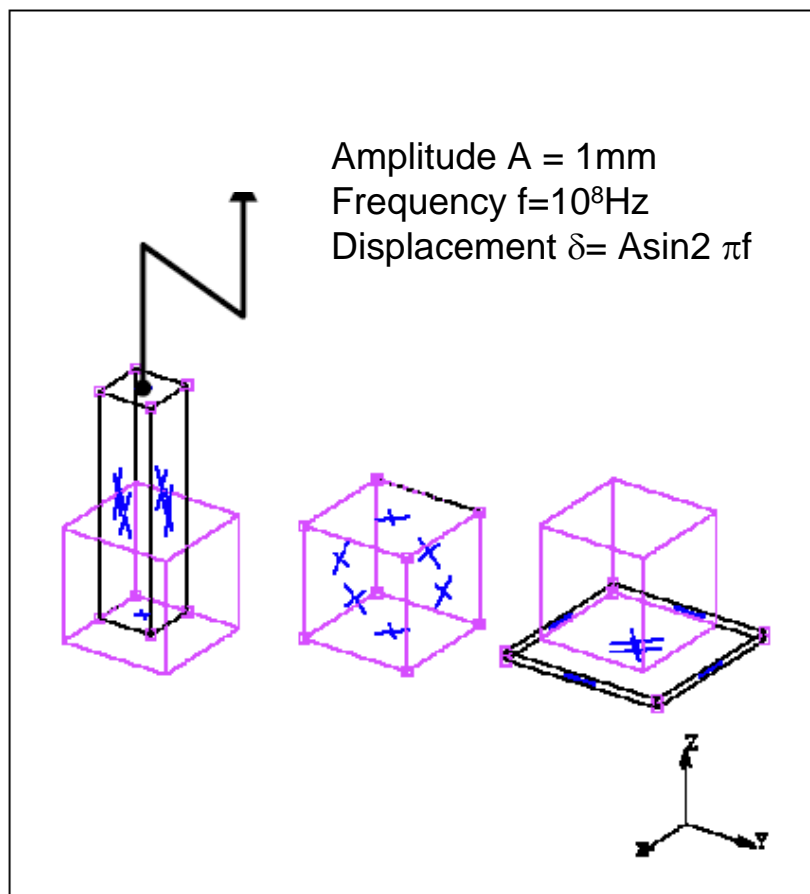
Analysis model



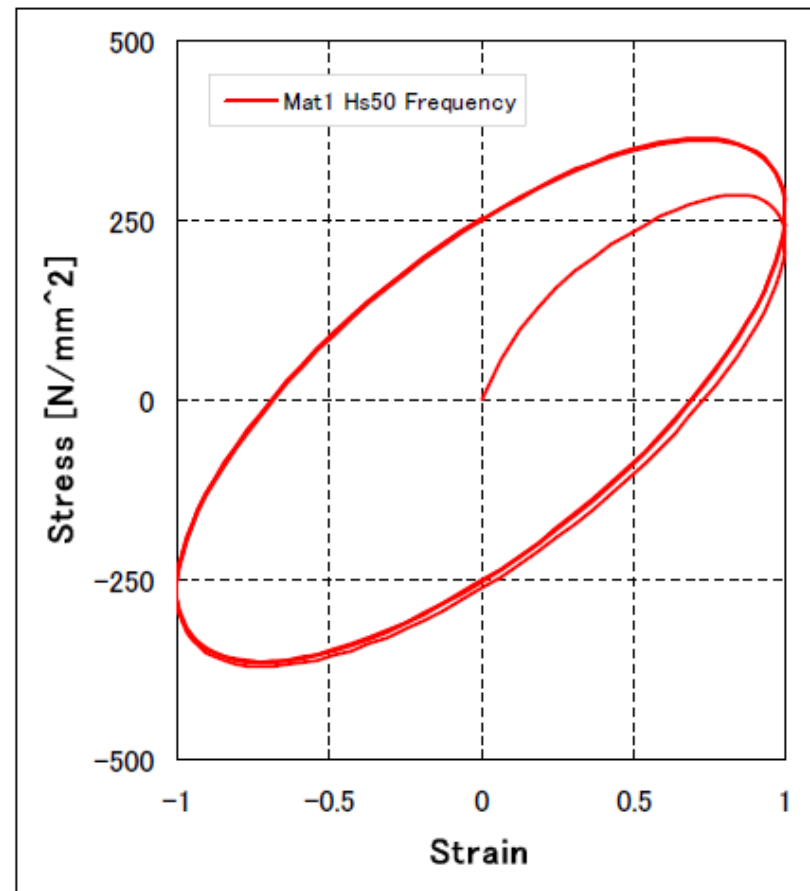
Stress-relaxation curve

Harmonic vibration analysis (mat1_hs50_freq_marc.dat) Hardness (50), Damping (Small)

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Analysis model



Hysteresis curve