

# Identification of material property Hardness (65), Damping (Large)

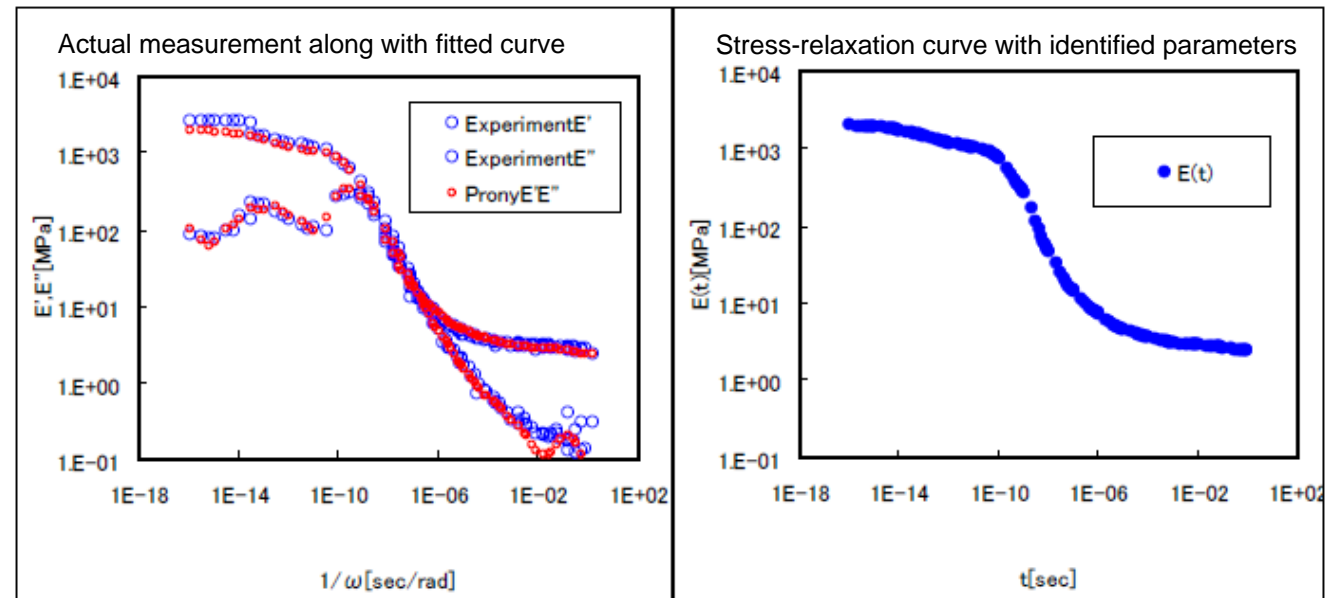
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Young's Modulus [N/mm <sup>2</sup> ]	Poisson's Ratio
1.96987E+03	4.99000E-01

$G_i$ [N/mm <sup>2</sup> ]	$t_i$ [sec]
3.55619E+01	6.36620E-16
3.07821E+01	6.36620E-15
7.49254E+01	1.59155E-13
2.41395E+02	5.30516E-13
1.65919E+02	5.30516E-12
6.48446E+01	5.30516E-11
1.89551E+01	5.30516E-10
8.97045E+00	5.30516E-09
4.14216E+00	5.30516E-08
2.00976E+00	5.30516E-07
1.78288E+00	3.18310E-06
1.49541E+00	3.18310E-05
1.30484E+00	3.18310E-04
1.26592E+00	3.18310E-03
5.55065E-01	7.95775E-02
5.43803E-01	2.65258E-01
3.96922E-01	1.98944E+00
6.20842E-01	1.98944E+01

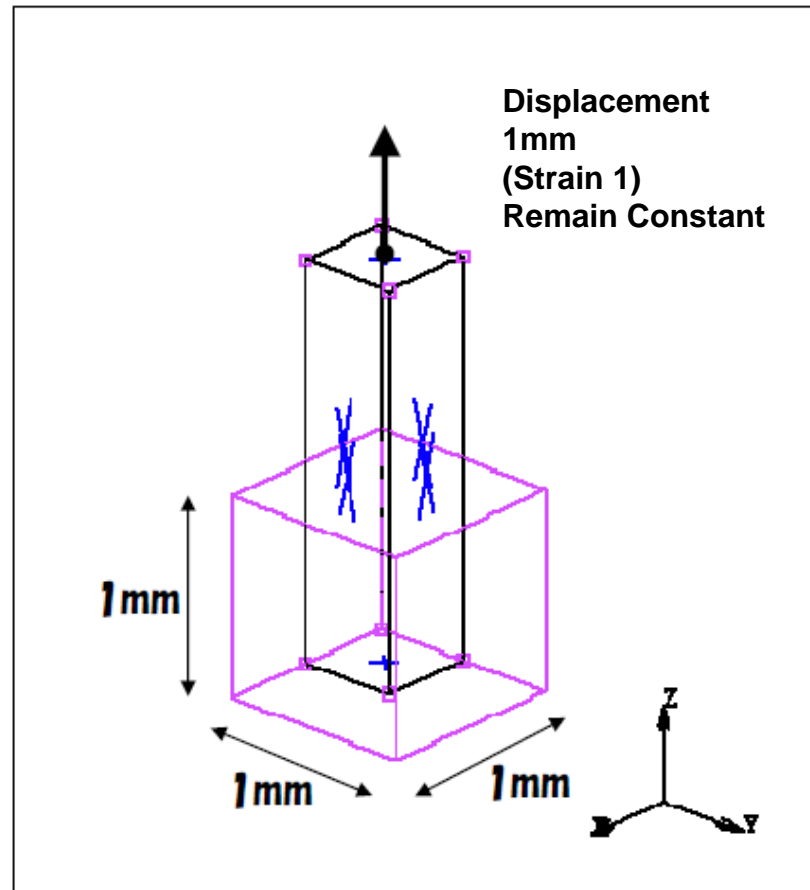
Prony series

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

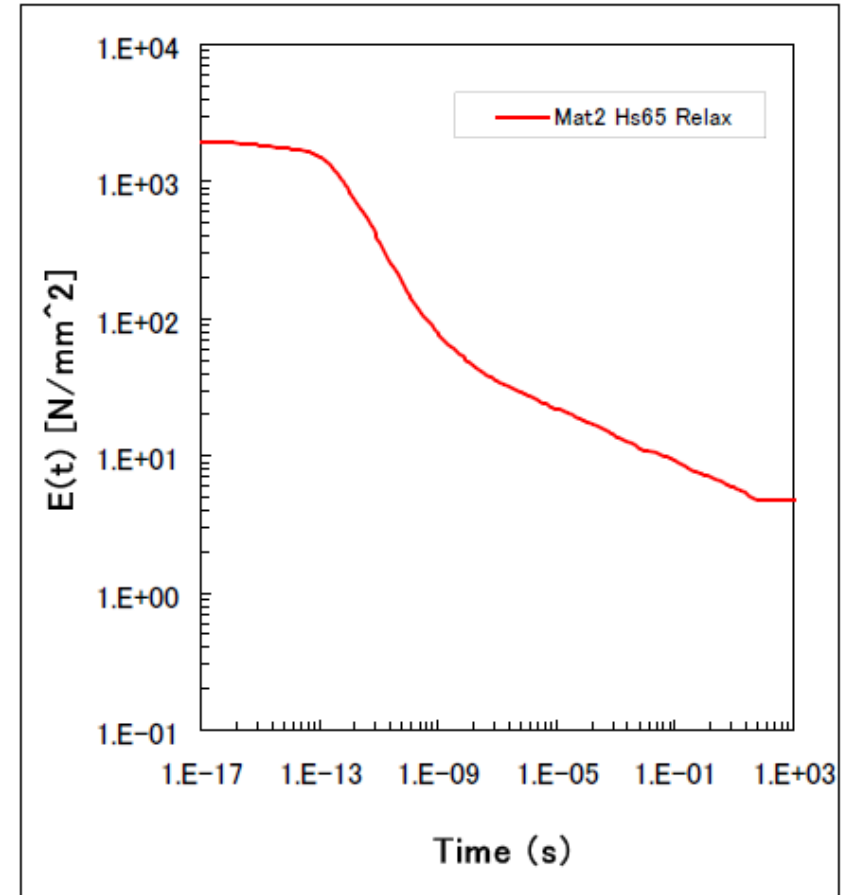


# Stress-relaxation analysis (mat2\_hs65\_relax\_marc.dat) Hardness (65), Damping (Large)

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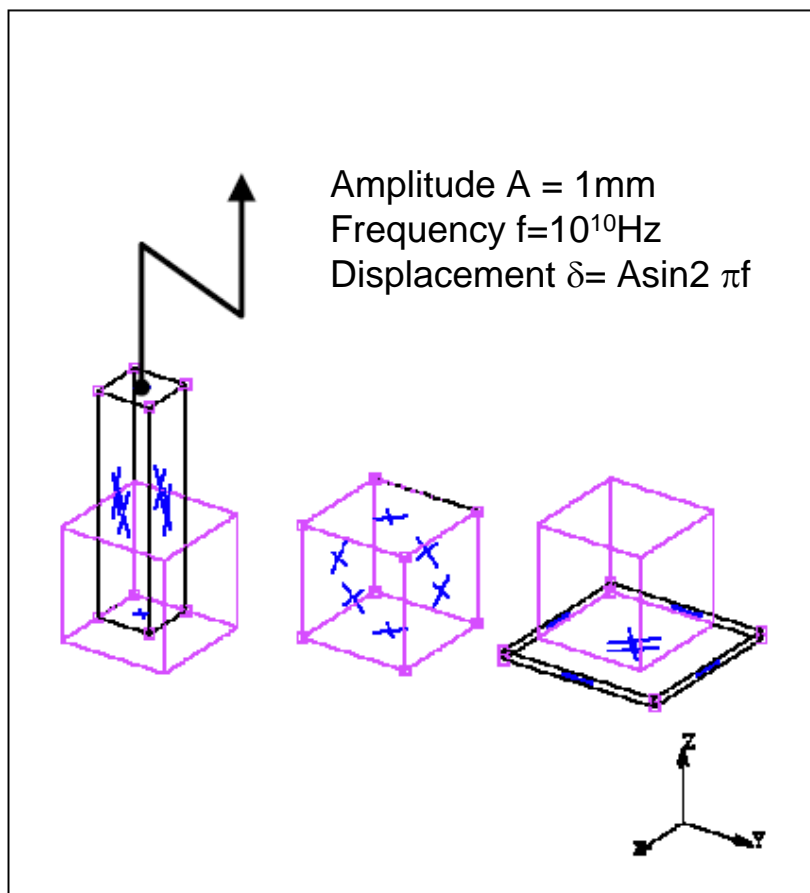
Analysis model



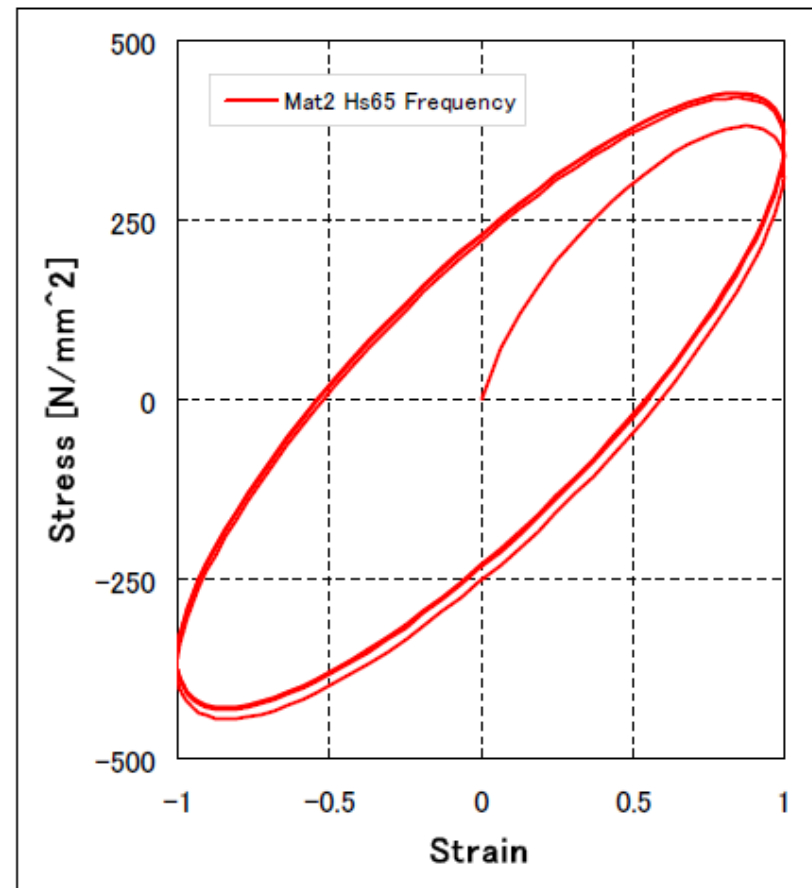
Stress-relaxation curve

# Harmonic Vibration Analysis (mat2\_hs65\_freq\_marc.dat) Hardness (65), Damping (Large)

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Analysis model



1000Hz hysteresis curve