

Identification for Mooney model: Hardness (65), Damping (Large), V=2

MSC.Marc

Mooney model

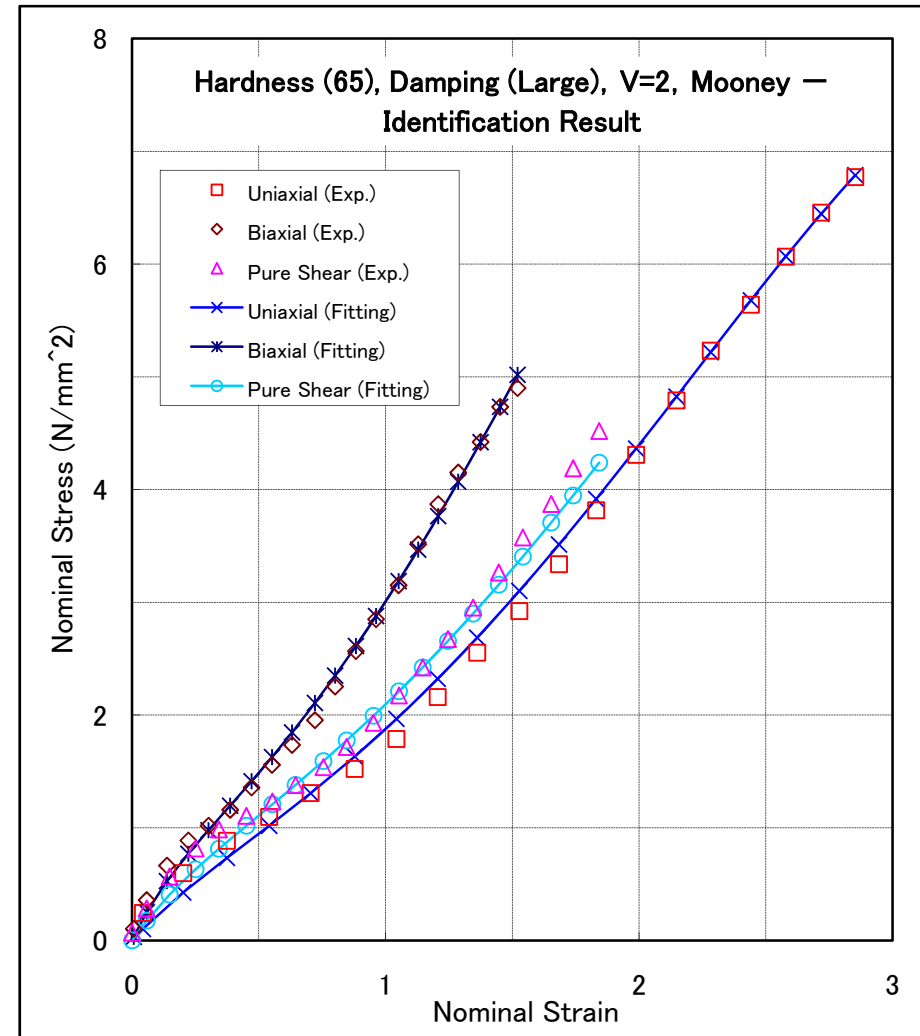
$$W = \sum_{m=1}^N \sum_{n=1}^N C_{mn} (I_1 - 3)^m (I_2 - 3)^n$$

Rate of Loading in Tension Test(s)

2 mm/s

Coefficient

Coefficient	
C10 (C1)	0.400107
C01 (C2)	0.0130359
C20 (C3)	0.0343113
C11 (C4)	0.000727927
C02 (C5)	—
C30 (C6)	-0.000787937



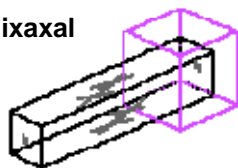
Identification result:
Stress-strain relationship

Analysis with Mooney model: Hardness (65), Damping (Large), V=2

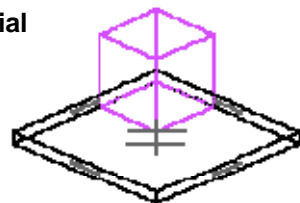
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Input File: ys_nll_v2_marc_m.dat

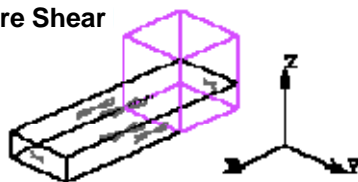
Uniaxial



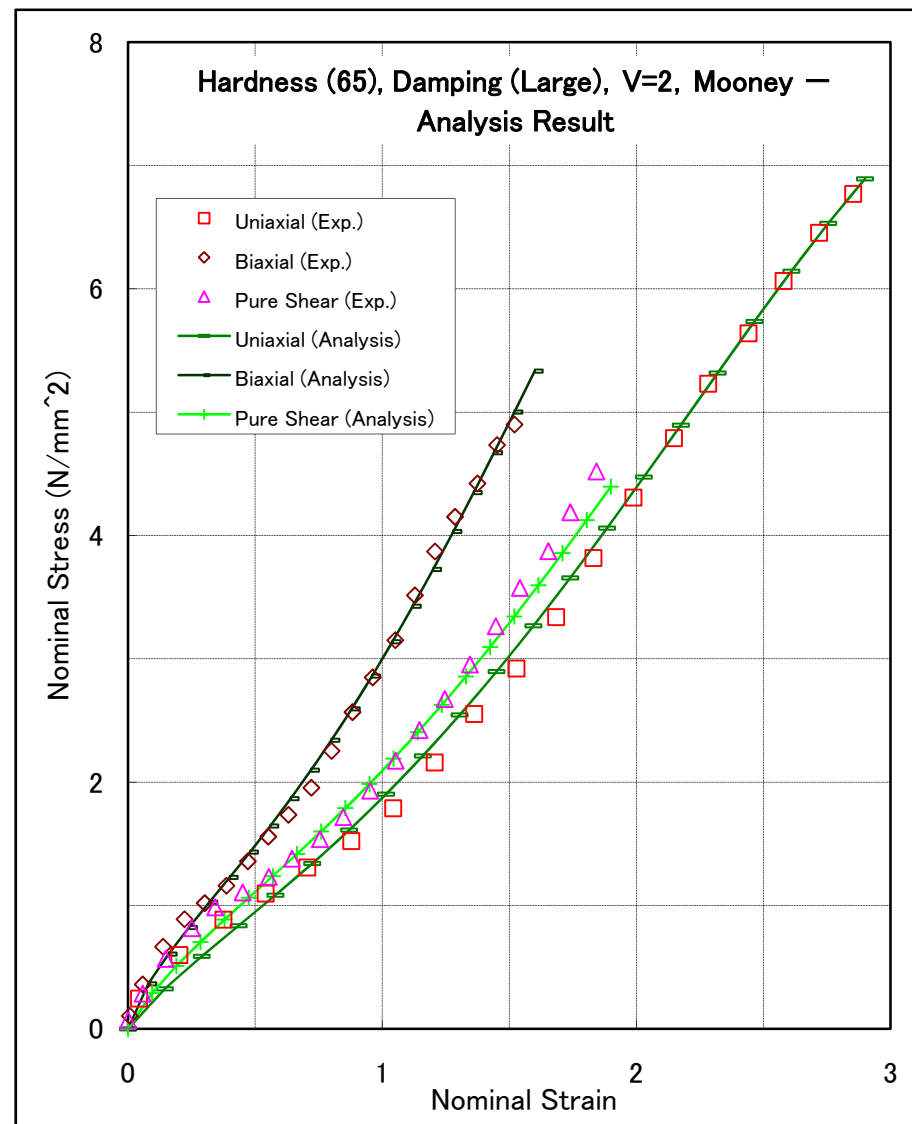
Biaxial



Pure Shear



Analysis model



Analysis result:
Stress-strain relationship

Identification for Mooney model: Hardness (65) Damping (Large), V=20

MSC.Marc

Mooney model

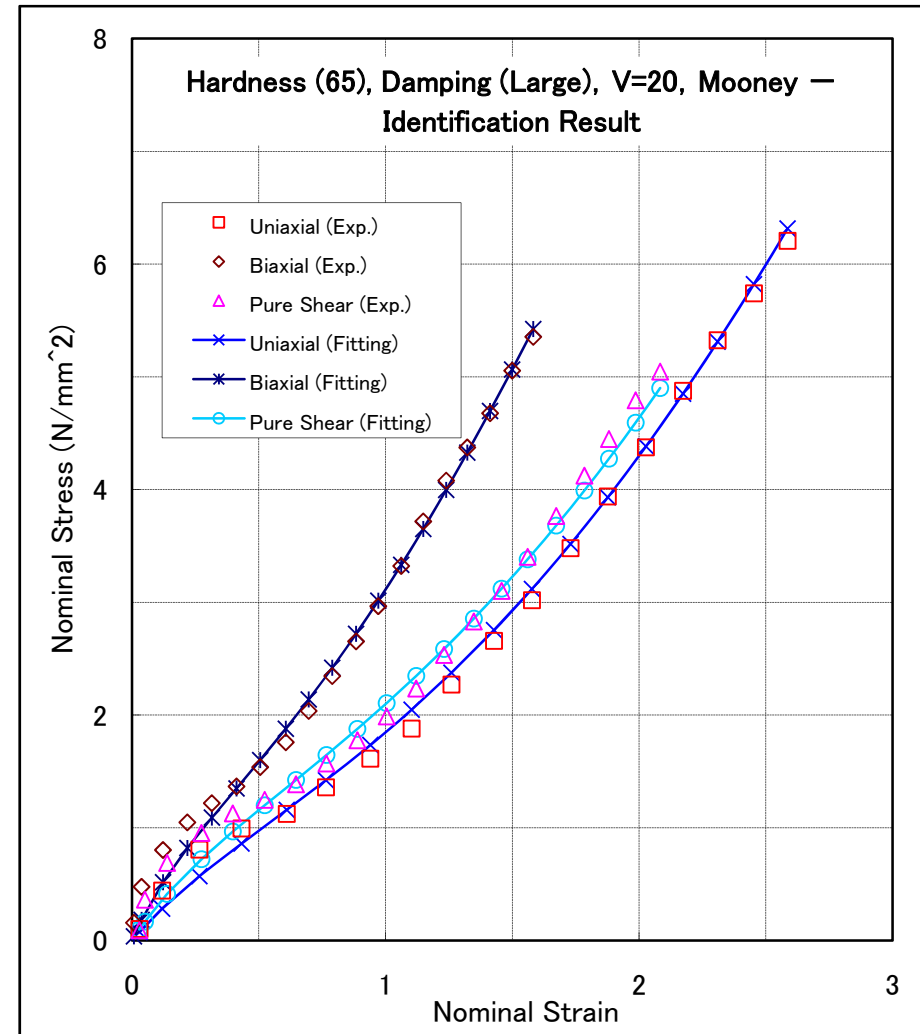
$$W = \sum_{m=1}^N \sum_{n=1}^N C_{mn} (I_1 - 3)^m (I_2 - 3)^n$$

Rate of Loading in Tension Test(s)

20 mm/s

Coefficient

Coefficient	
C10 (C1)	0.403998
C01 (C2)	0.0409054
C20 (C3)	0.027153
C11 (C4)	-0.00101837
C02 (C5)	—
C30 (C6)	-0.000226606

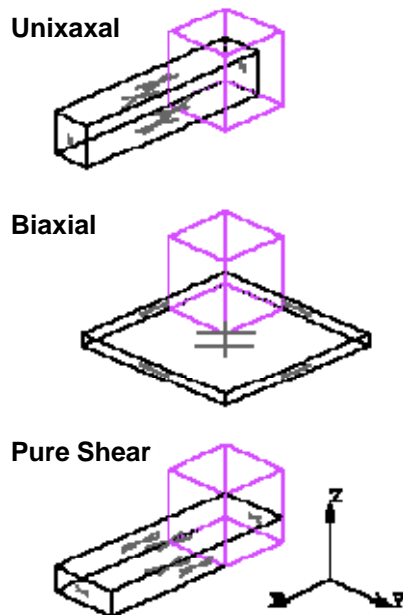


Identification result:
Stress-strain relationship

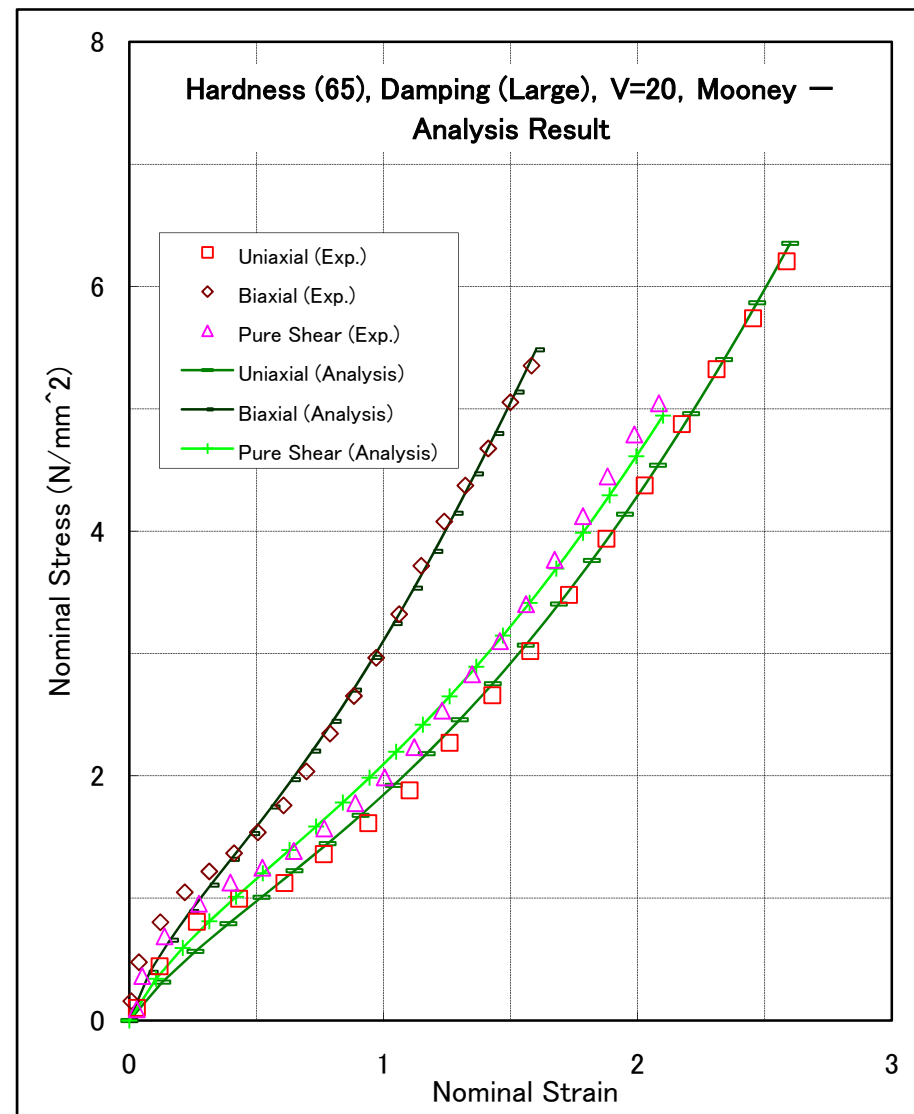
Analysis with Mooney model: Hardness (65), Damping (Large), V=20

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Input File: ys_nll_v20_marc_m.dat



Analysis model



Analysis result:
Stress-strain relationship

Identification for Ogden model: Hardness (65), Damping (Large), V=2

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Ogden model

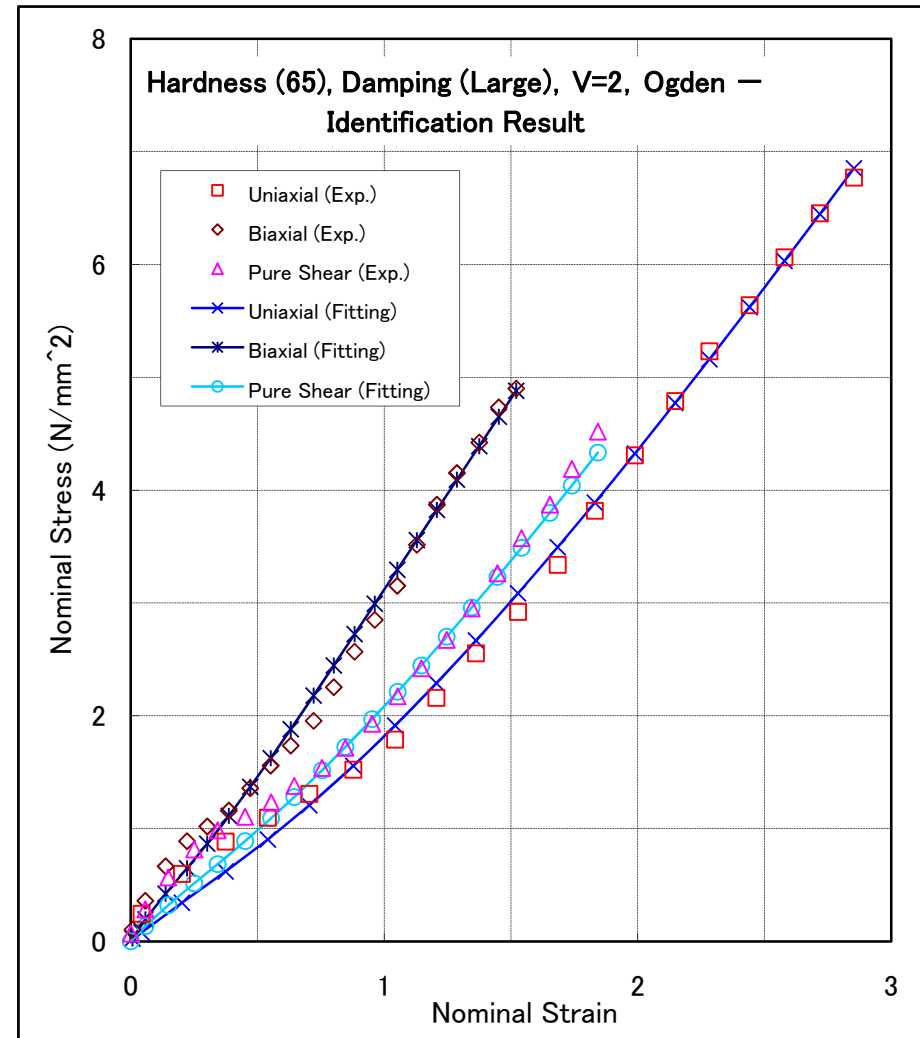
$$W = \sum_{n=1}^N \frac{\mu_n}{\alpha_n} \left[J^{\frac{\alpha_n}{3}} (\lambda_1^{\alpha_n} + \lambda_2^{\alpha_n} + \lambda_3^{\alpha_n}) - 3 \right]$$

Rate of Loading in Tension Test(s)

2 mm/s

Coefficient

Coefficient		
Order	μ	α
1	-29.4525	-0.158359
2	-2.64265	1.55356
3	51.861	1.59382

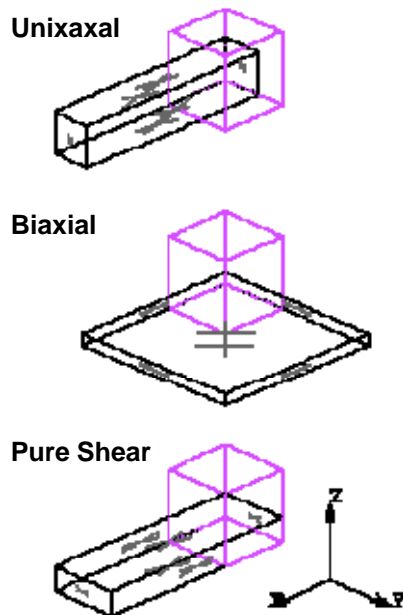


Identification result:
Stress-strain relationship

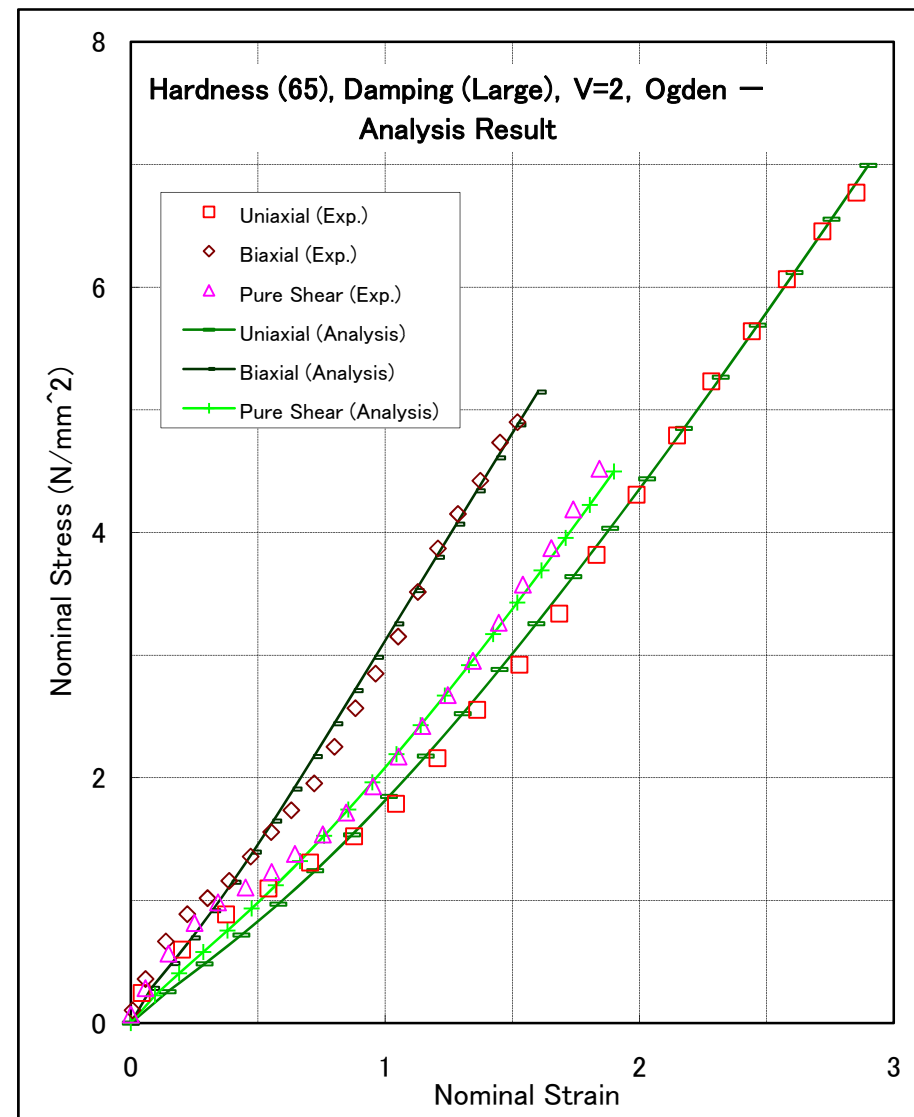
Analysis with Ogden model: Hardness (65), Damping (Large), V=2

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Input File: ys_nll_v2_marc_o.dat



Analysis model



Analysis result:
Stress-strain relationship

Identification for Ogden model: Hardness (65), Damping (Large), V=20

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Ogden model

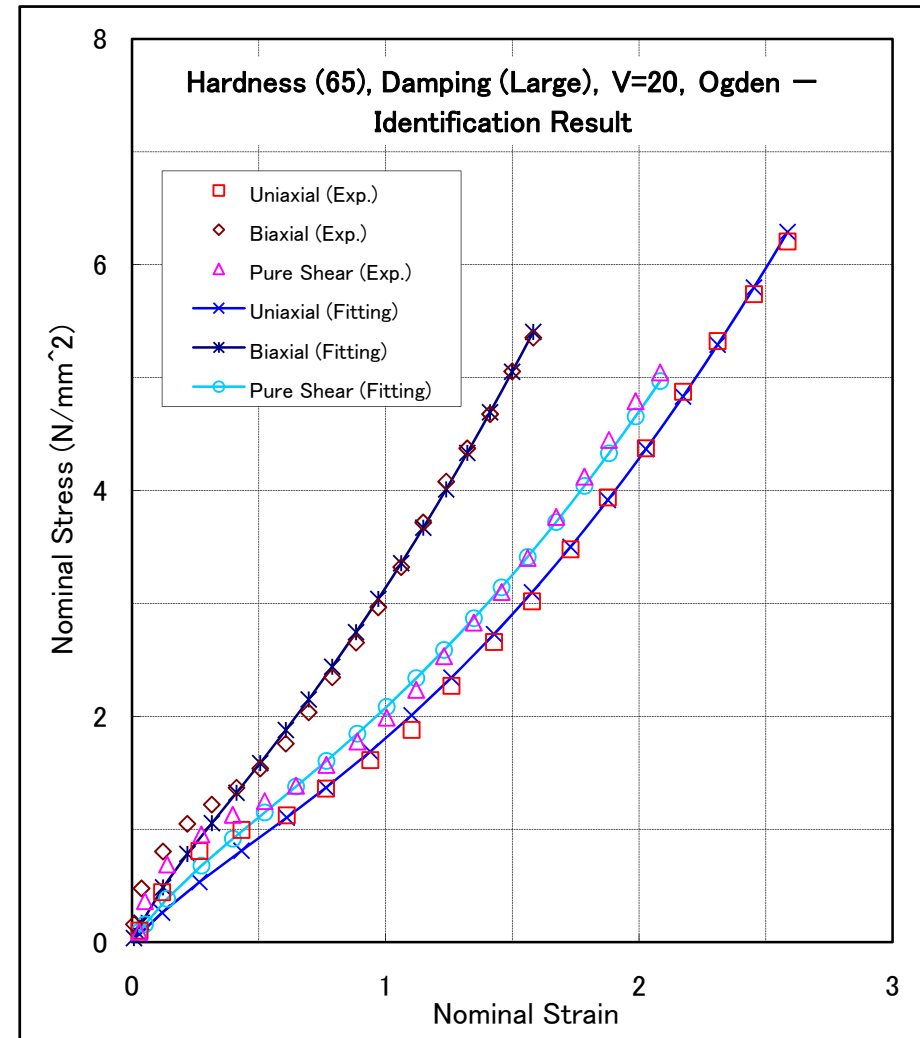
$$W = \sum_{n=1}^N \frac{\mu_n}{\alpha_n} \left[J^{-\frac{\alpha_n}{3}} \left(\lambda_1^{\alpha_n} + \lambda_2^{\alpha_n} + \lambda_3^{\alpha_n} \right) - 3 \right]$$

Rate of Loading in Tension Test(s)

20 mm/s

Coefficient

Coefficient		
Order	μ	α
1	-13.7619	-0.255194
2	13.6788	-0.336917
3	-1.5151	-1.06494
4	0.349528	3.2365

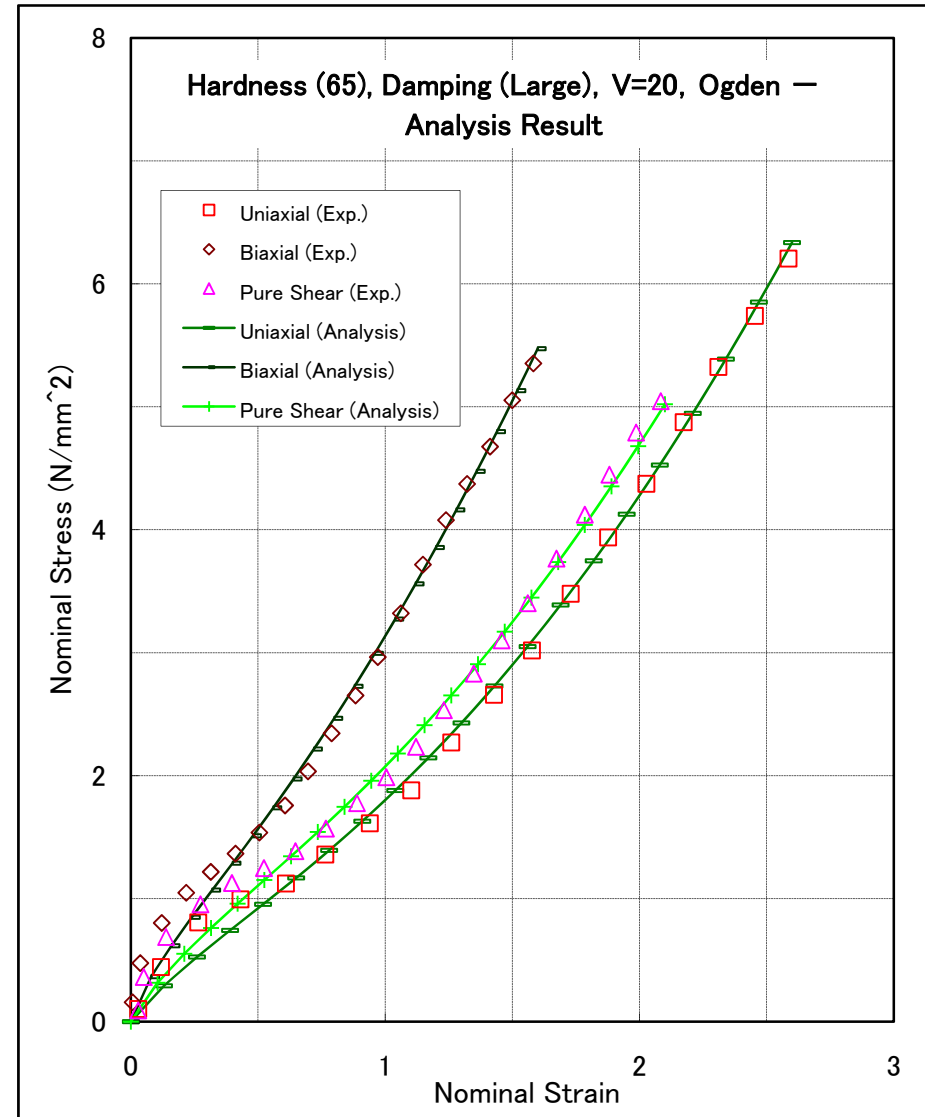
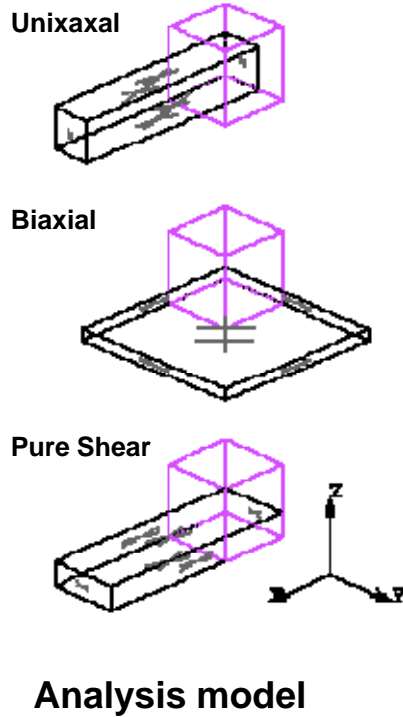


Identification result:
Stress-strain relationship

Analysis with Ogden model: Hardness (65), Damping (Large), V=20

MSC.Marc

Input File: ys_nll_v20_marc_o_dat



Analysis result:
Stress-strain relationship