

# Identification for Mooney model: Hardness (50), Damping (Small), V=2

MSC.Marc

Mooney model

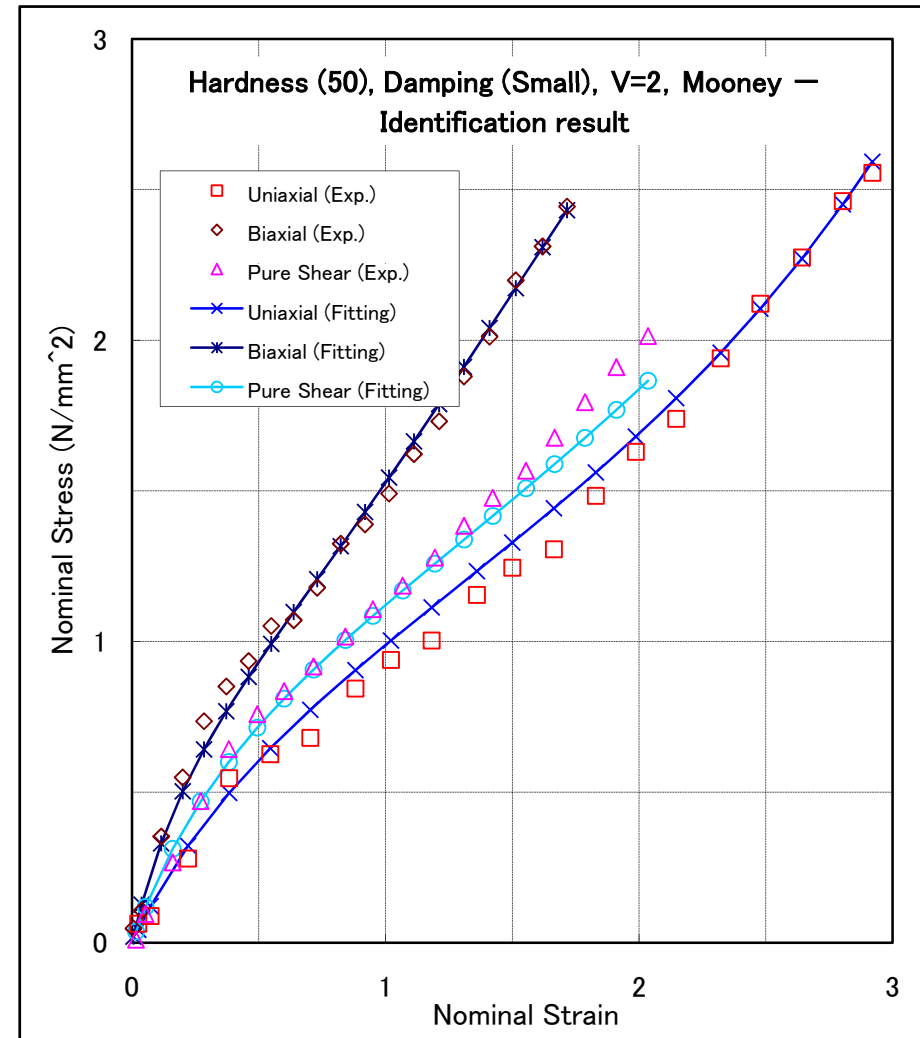
$$W = \sum_{m=1}^N \sum_{n=1}^N C_{mn} (I_1 - 3)^m (I_2 - 3)^n$$

Rate of Loading in Tension Test(s)

2 mm/s

Coefficient

Coefficient	
C10 (C1)	0.263009
C01 (C2)	0.0363394
C20 (C3)	0.000541403
C11 (C4)	-0.00103934
C02 (C5)	—
C30 (C6)	0.000117418

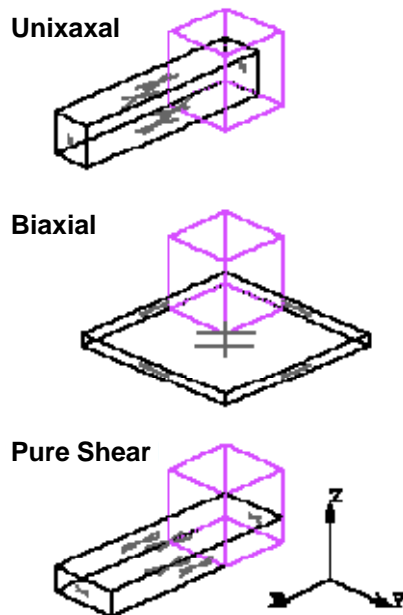


Identification result:  
Stress-strain relationship

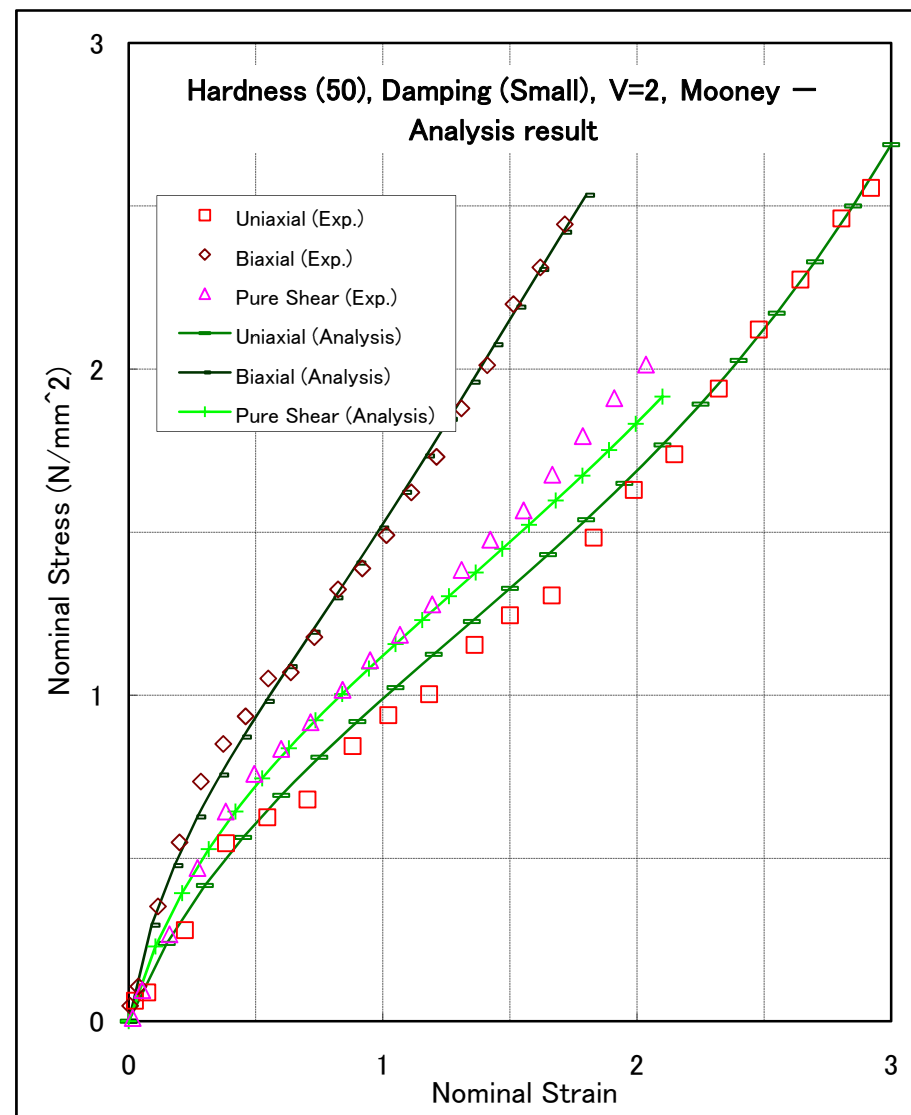
# Analysis with Mooney model: Hardness (50), Damping (Small), V=2

MSC.Marc

Input File: ys\_nss\_v2\_marc\_m.dat



Analysis model



Analysis result:  
Stress-strain relationship

# Identification for Mooney model: Hardness (50) Damping (Small), V=20

MSC.Marc

Mooney model

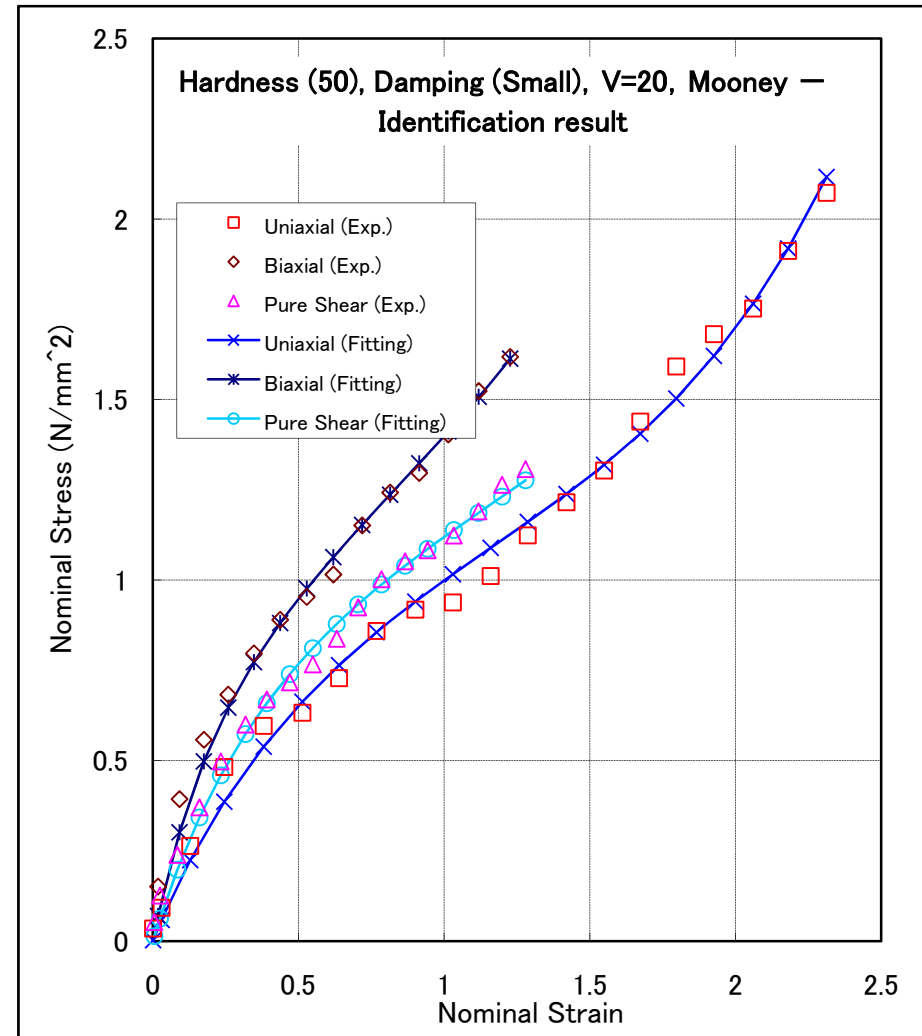
$$W = \sum_{m=1}^N \sum_{n=1}^N C_{mn} (I_1 - 3)^m (I_2 - 3)^n$$

Rate of Loading in Tension Test(s)

20 mm/s

Coefficient

Coefficient	
C10 (C1)	0.292189
C01 (C2)	0.0395237
C20 (C3)	-0.00770222
C11 (C4)	-0.0022677
C02 (C5)	—
C30 (C6)	0.000774085

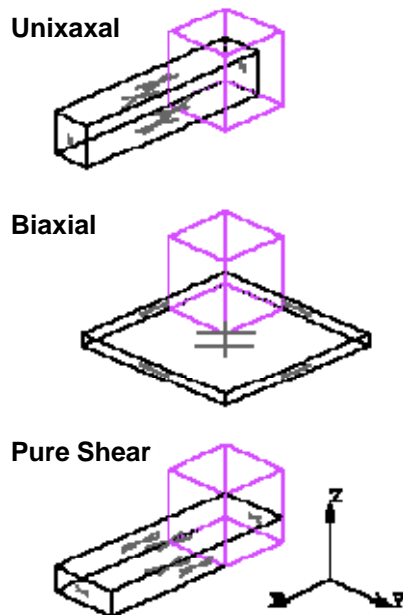


Identification result:  
Stress-strain relationship

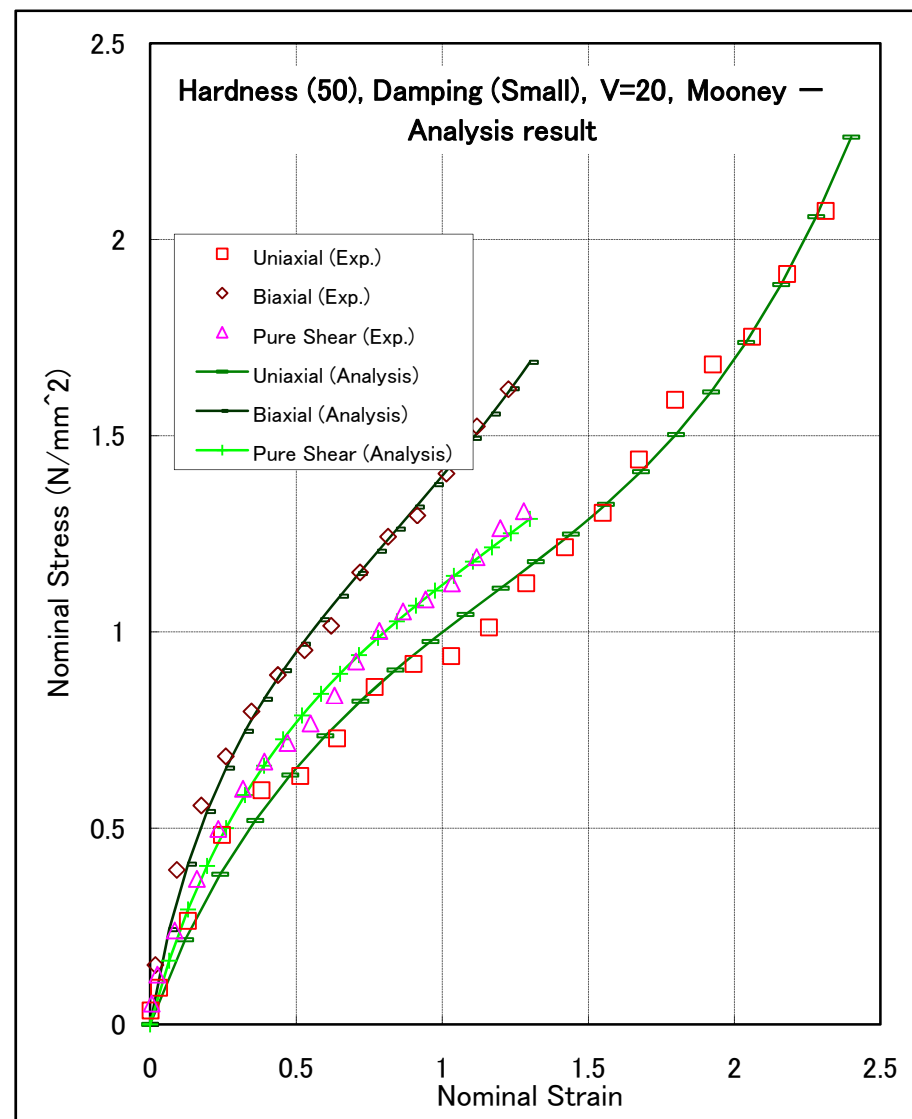
# Analysis with Mooney model: Hardness (50), Damping (Small), V=20

MSC.Marc

Input File: ys\_nss\_v20\_marc\_m.dat



Analysis model



Analysis result:  
Stress-strain relationship

# Identification for Ogden model: Hardness (50), Damping (Small), V=2

MSC.Marc

Ogden model

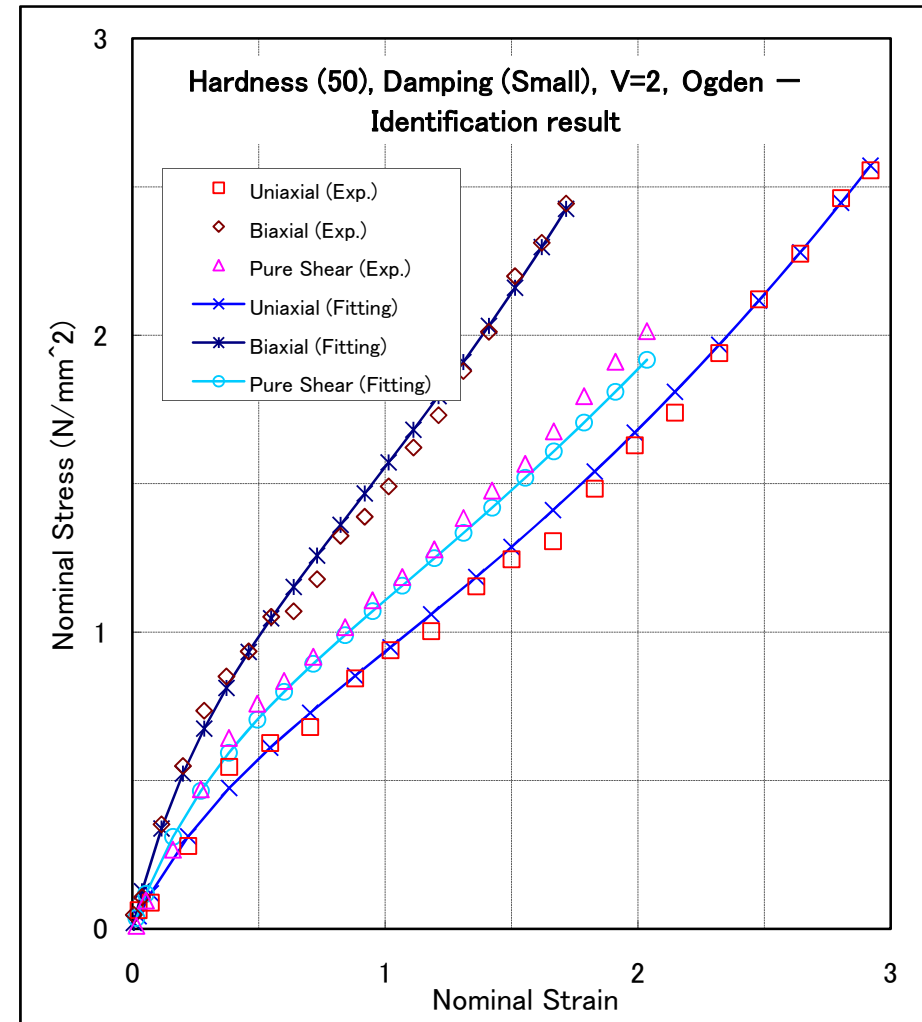
$$W = \sum_{n=1}^N \frac{\mu_n}{\alpha_n} \left[ J^{\frac{\alpha_n}{3}} (\lambda_1^{\alpha_n} + \lambda_2^{\alpha_n} + \lambda_3^{\alpha_n}) - 3 \right]$$

Rate of Loading in Tension Test(s)

2 mm/s

Coefficient

Coefficient		
Order	$\mu$	$\alpha$
1	15.758	0.0196578
2	9.14114	0.0395277
3	-0.0563985	-1.72779
4	0.141341	3.00122

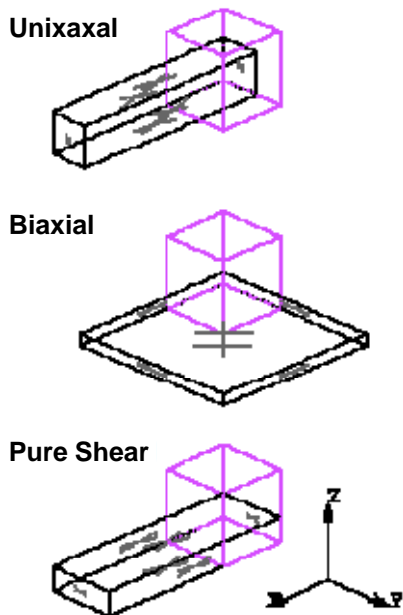


Identification result:  
Stress-strain relationship

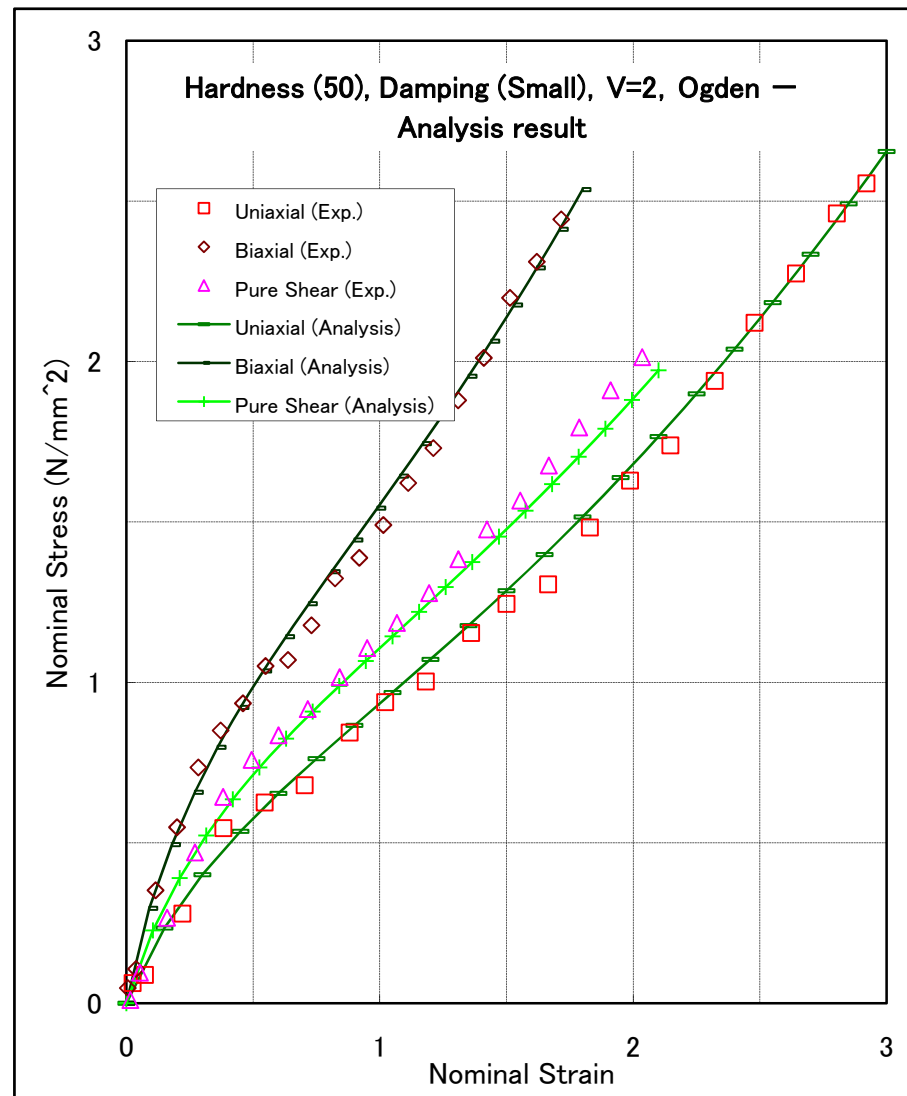
# Analysis with Ogden model: Hardness (50), Damping (Small), V=2

MSC.Marc

Input File: ys\_nss\_v2\_marc\_o.dat



Analysis model



Analysis result:  
Stress-strain relationship

# Identification for Ogden model: Hardness (50), Damping (Small), V=20

MSC.Marc

Ogden model

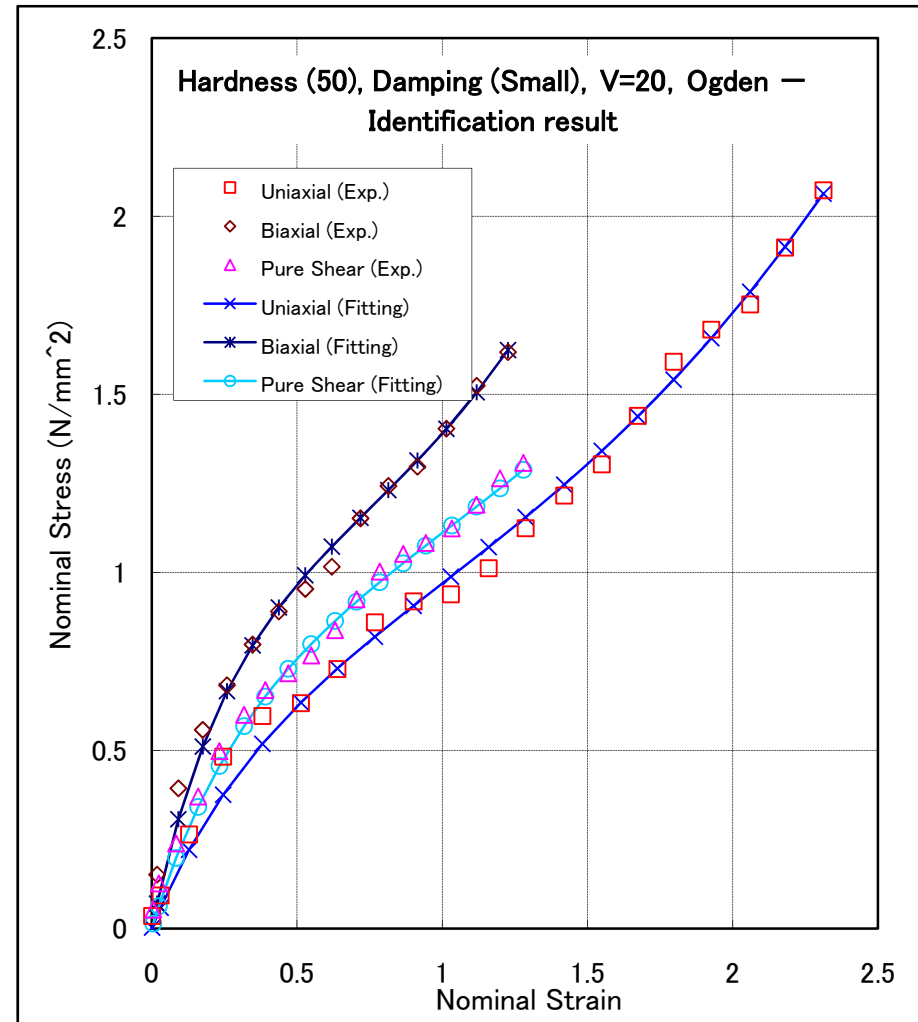
$$W = \sum_{n=1}^N \frac{\mu_n}{\alpha_n} \left[ J^{\frac{\alpha_n}{3}} (\lambda_1^{\alpha_n} + \lambda_2^{\alpha_n} + \lambda_3^{\alpha_n}) - 3 \right]$$

Rate of Loading in Tension Test(s)

20 mm/s

Coefficient

Coefficient		
Order	$\mu$	$\alpha$
1	27.2582	0.144125
2	17.2456	-0.160841
3	-0.0183609	-2.50259
4	0.030216	4.10524

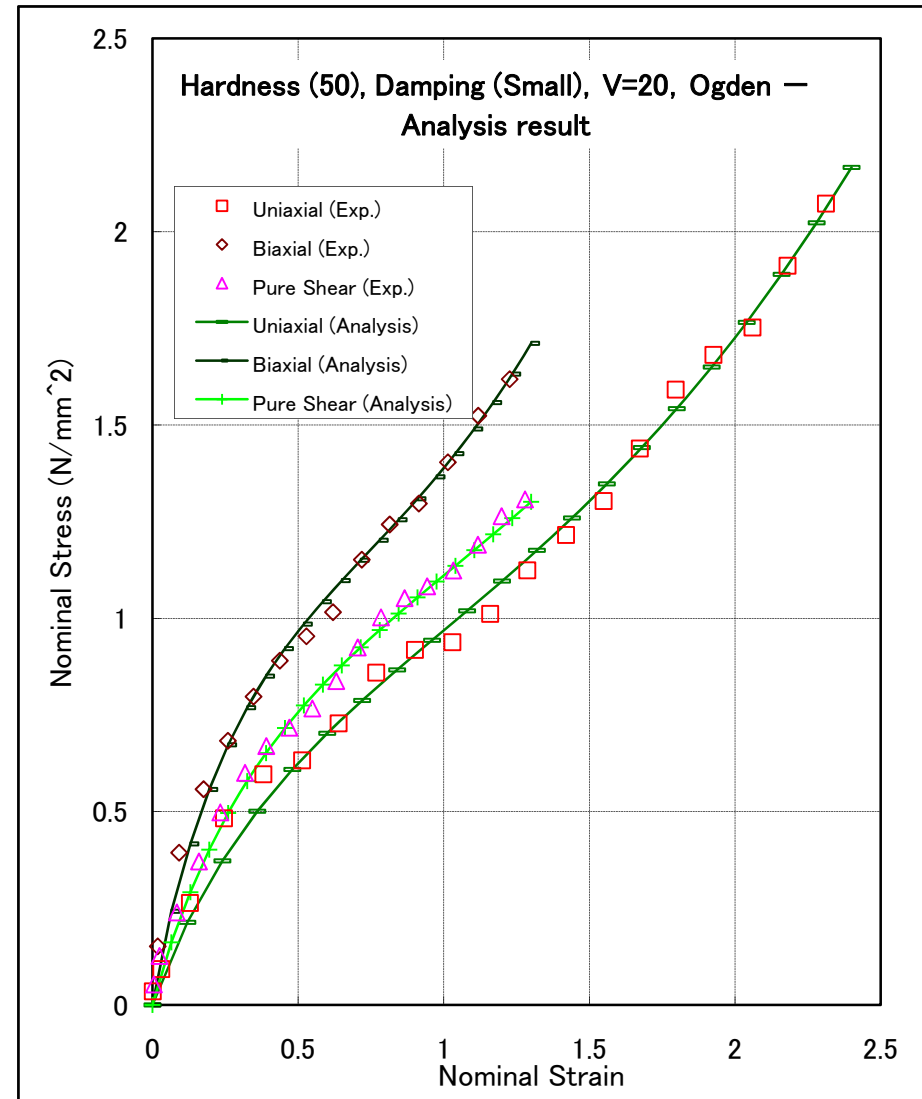
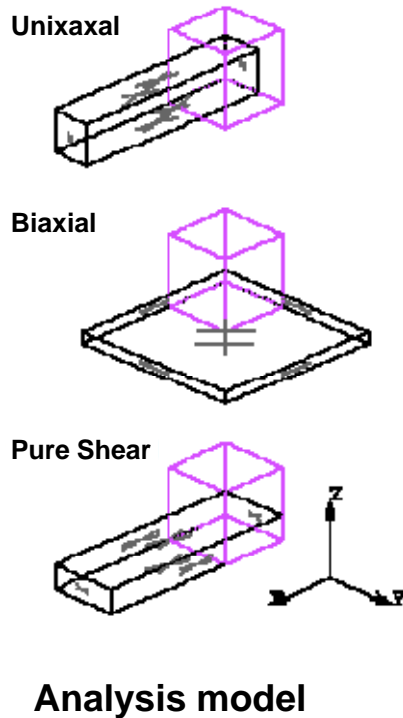


Identification result:  
Stress-strain relationship

# Analysis with Ogden model: Hardness (50), Damping (Small), V=20

MSC.Marc

Input File: ys\_nss\_v20\_marc\_o\_dat



Analysis result:  
Stress-strain relationship