



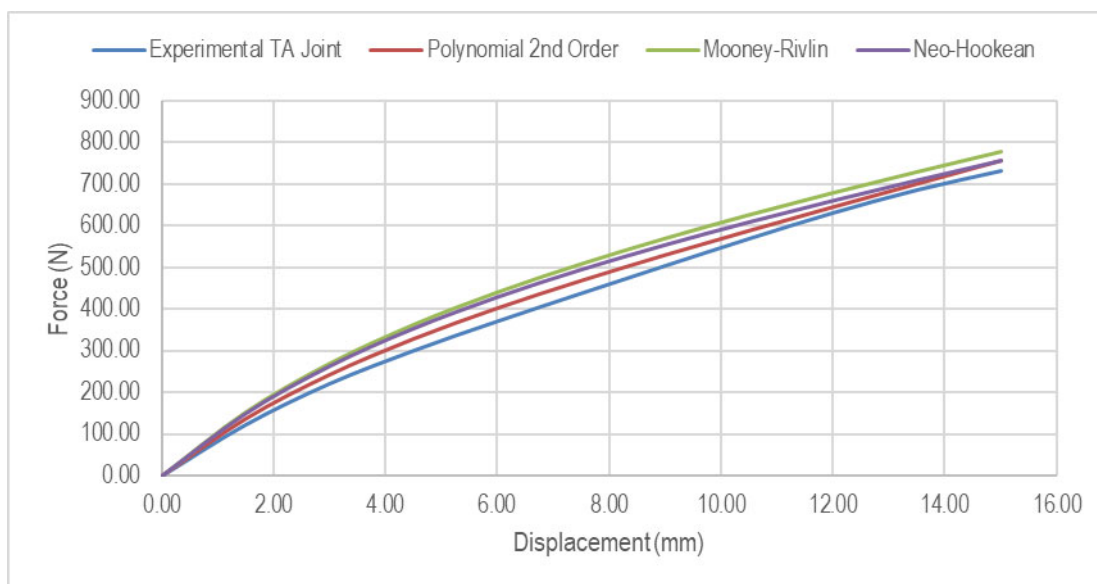
Simulation Data Sheet

DOWSIL™ 993N Structural Glazing Sealant - China

Hyperelastic Model Data

These are typical properties, not to be construed as specifications.

Best Fit Model	Constants	Average Percent Error
Polynomial 2nd Order (N=2)	$C_{10} = 2.412 \times 10^5 \text{ Pa}$ $C_{01} = -1.5270 \times 10^4 \text{ Pa}$ $C_{20} = 1.3850 \times 10^3 \text{ Pa}$ $C_{11} = 2.920 \times 10^2 \text{ Pa}$ $C_{02} = 1.2530 \times 10^3 \text{ Pa}$	5.76%
Standard Hyperelastic Models	Constants	Average Percent Error
Mooney-Rivlin 2-Parameter	$C_{10} = 2.673 \times 10^5 \text{ Pa}$ $C_{01} = -1.4658 \times 10^4 \text{ Pa}$	13.36%
Neo-Hookean	$C_{10} = 2.481 \times 10^5 \text{ Pa}$	10.68%



Linear Approximation Model Data

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Strain Range	Linear Elastic Constants
$\epsilon = 0$ to 10%	E = 1.65 MPa $\nu = 0.5$
$\epsilon = 0$ to 25%	E = 1.43 MPa $\nu = 0.5$
$\epsilon = 0$ to 50%	E = 1.20 MPa $\nu = 0.5$

Notes:

All testing done at room temperatures and at quasi-static loading rates.

Polynomial models may also be referred to as Mooney-Rivlin of a specific order in FE software packages.

The data provided above is done so for the convenience of designing with Dow products. It is expected that use of this data in computer-based simulations will be accompanied with sound engineering practices of analysis, physical testing, and the proper application of relevant regional building codes.

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