

Simulation Data Sheet

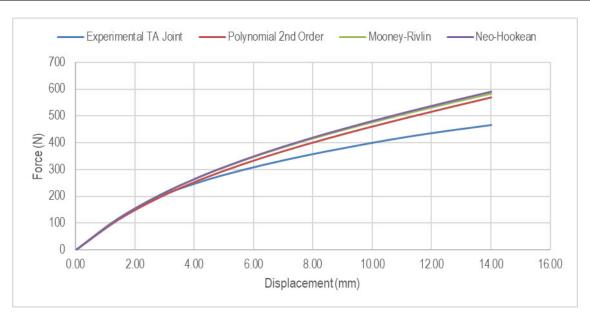
DOWSIL™ 795 Structural Glazing Sealant (SGS)

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 = 1.6750 x 10 ⁵ Pa	10.26%
	$C^{01} = 2.8841 \times 10^4 \text{ Pa}$	
	$C_{20} = 4.4500 \times 10^2 \text{ Pa}$	
	$C_{11} = 1.42800 \times 10^3 \text{ Pa}$	
	$C_{02} = -1.2790 \times 10^3 \text{ Pa}$	

Standard Hyperelastic Models	Constants	Average Percent Error
Mooney-Rivlin	C ₁₀ = 1.8303 x 10 ⁵ Pa	12.83%
	$C_{01} = 2.1181 \times 10^4 \text{ Pa}$	
Neo-Hookean	C ₁₀ = 2.0182 x 10 ⁵ Pa	13.53%



Linear Approximation Model Data

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Strain Range	Linear Elastic Constants	
ε = 0 to 10%	E = 1.643 MPa	
	v = 0.5	
ε = 0 to 25%	E = 1.334 MPa	
	v = 0.5	
ε = 0 to 50%	E = 0.983 MPa	
	v = 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 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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