



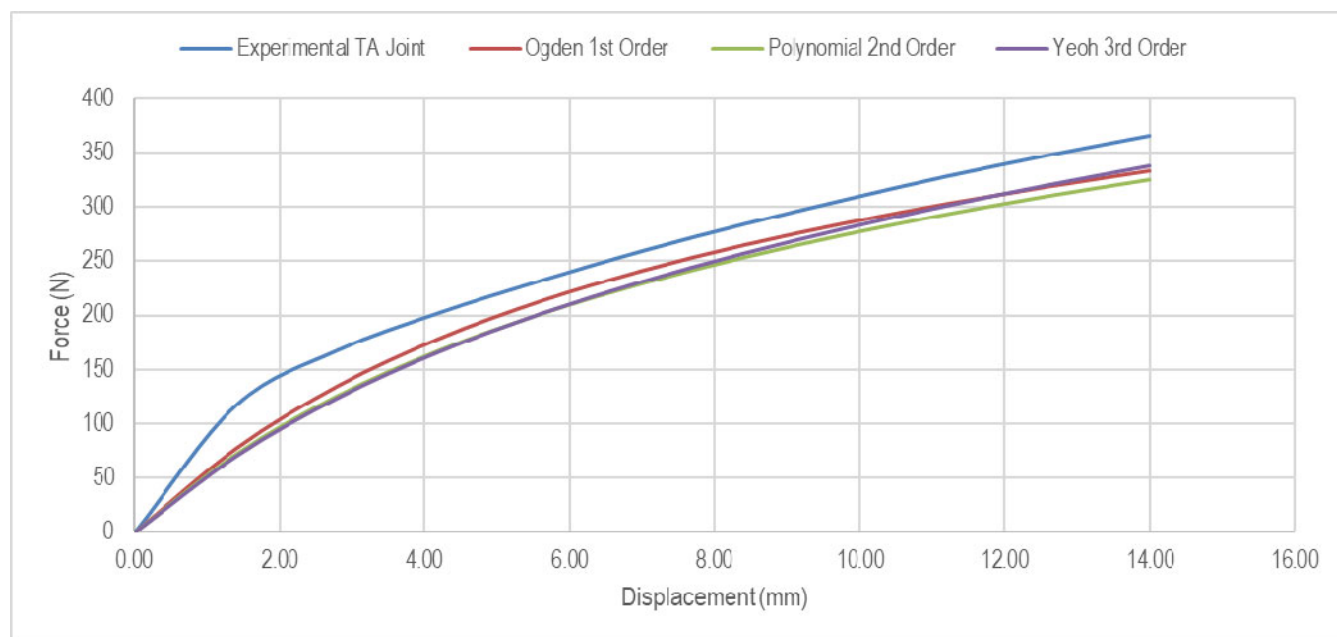
Simulation Data Sheet

DOWSIL™ 795 Silicone Building Sealant

Hyperelastic Model Data

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

Best Fit Model	Constants	Average Percent Error
Ogden 1st Order (N=1)	$\mu_1 = 2.75472 \times 10^5 \text{ Pa}$ $\alpha_1 = 1.502973$	10.9%
Standard Hyperelastic Models	Constants	Average Percent Error
Polynomial 2 nd Order (N=2)	$C_{10} = 1.03620 \times 10^5 \text{ Pa}$ $C_{01} = 2.4947 \times 10^4 \text{ Pa}$ $C_{20} = 2.8 \times 10^1 \text{ Pa}$ $C_{11} = -2.410 \times 10^3 \text{ Pa}$ $C_{02} = 3.54 \times 10^2 \text{ Pa}$	14.4%
Yeoh 3 rd Order (N=3)	$C_{10} = 1.23548 \times 10^5 \text{ Pa}$ $C_{20} = -1.236 \times 10^3 \text{ Pa}$ $C_{30} = 9 \times 10^1 \text{ Pa}$	13.8%



Linear Approximation Model Data

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

Strain Range	Linear Elastic Constants
$\epsilon = 0$ to 10%	$E = 1.80$ MPa $\nu = 0.5$
$\epsilon = 0$ to 25%	$E = 1.14$ MPa $\nu = 0.5$
$\epsilon = 0$ to 50%	$E = 0.80$ MPa $\nu = 0.5$

Notes:

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

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

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.

dow.com

NOTICE: No freedom from infringement of any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where Dow is represented. The claims made may not have been approved for use in all countries. Dow assumes no obligation or liability for the information in this document. References to "Dow" or the "Company" mean the Dow legal entity selling the products to Customer unless otherwise expressly noted. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

