

## Data driven confidence.

3M Finite Element Analysis (FEA) for 3M Adhesives and Tapes



#### Model design challenges earlier.

Simulate before you assemble to help reduce development cycle time and product failure.



#### Data you can trust.

Predict performance and verify 3M Adhesive and Tape bonding applications in the product design.

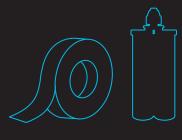


#### Reliable compatibility.

3M Material Data Cards (MDC) are compatible with many design simulation programs.

3M Adhesives and Tapes can help:

- optimize joint design
- decrease material waste
- improve production efficiency



# Accurate material data to advance your design.

During the design process simulation can help verify engineering decisions. To effectively run simulations, obtaining accurate engineering data is essential. 3M provides unparalled adhesive and tape data so your modeling system can more accurately predict how a bonded joint will perform under stress.

3M's accurate material models are key to predictive product performance. 3M FEA modeling can help you determine the optimum adhesive and joint design for bonding applications.



Bonded part: Stress is distributed across the area of the bond.



Stress distribution in an overlap joint loaded in shear.



Stress distribution in a butt joint loaded in tension.

#### 3M Material Data Card (MDC)

Defines material properties for 3M Adhesives and Tapes

- Sticky, squishy, softer materials
- Nonlinear mechanical properties
- ▶ Strain rate-dependent modulus



Finite Element Analysis (FEA) Model

Defines part shape, geometries and boundary conditions. Learn how to import 3M Adhesive and Tape MDCs into finite element design.

Demo provides exact digital instruction on how to use 3M MDCs

Visuals and multimedia content helps improve comprehension

Available for multiple FEA platforms



### Use 3M Adhesives and Tapes in your design.



Faster Assembly Time



Design Flexibility



Immediate Handling Strength



Bond Dissimilar Materials



Clean Aesthetics and Reduced Product Bulk



Prevent Moisture Intrusion

For more information or to request an MDC, scan or click the QR Code



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