| Adhesive | Viscoelastic | | | | Elastoplastic | | Finite Strain | | Cohesive Zone | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ANSYS | ABAQUS | LS-DYNA | Altair Radioss | ANSYS | ABAQUS | ANSYS | ABAQUS | ANSYS | ABAQUS |
| LOCTITE® AA 326™ | | | | | | | | | | |
| LOCTITE® AA 330™ | | | | | | | | | | |
| LOCTITE® AA 331™ | | | | | | | | | | |
| LOCTITE® AA 334™ | | | | | | | | | | |
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| LOCTITE® AA 3525™ | | | | | | | | | | |
| LOCTITE® AA 3924™ | | | | | | | | | | |
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| LOCTITE® AA H4500™ | | | | | | | | | | |
| LOCTITE® AA H4800™ | | | | | | | | | | |
| LOCTITE® AA H8000™ | | | | | | | | | | |
| LOCTITE® AA H8003™ | | | | | | | | | | |
| LOCTITE® AA H8006™ | | | | | | | | | | |
| LOCTITE® AA H8500™ | | | | | | | | | | |
| LOCTITE® AA H8600™ | | | | | | | | | | |
| LOCTITE® EA E-20HP™ | | | | | | | | | | |
| LOCTITE® EA E-30CL™ | | | | | | | | | | |
| LOCTITE® EA E-60HP™ | | | | | | | | | | |

**LEGEND**

- Available
- Coming Soon
- Not Available

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|---|---|---|---|---|---|---|---|---|---|---|
| **LOCTITE® EA E-60NC™** | | | | | | | | | | |
| **LOCTITE® EA E-90FL™** | | | | | | | | | | |
| **LOCTITE® EA E-120HP™** | | | | | | | | | | |
| **LOCTITE® EA E-214HP™** | | | | | | | | | | |
| **LOCTITE® EA M-31CL™** | | | | | | | | | | |
| **LOCTITE® HHD 3542™** | | | | | | | | | | |
| **LOCTITE® HHD 6006™** | | | | | | | | | | |
| **LOCTITE® HHD 6008™** | | | | | | | | | | |
| **LOCTITE® HHD 8150R™** | | | | | | | | | | |
| **LOCTITE® HY 4070™** | | | | | | | | | | |
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| **LOCTITE® PU 1367™** | | | | | | | | | | |
| **LOCTITE® SI 5600™** | | | | | | | | | | |
| **LOCTITE® SI 5900™** | | | | | | | | | | |
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| **TEROSON® RB 1248 GB** | | | | | | | | | | |
| **TEROSON® RB 3203 GB** | | | | | | | | | | |

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## An Overview of FEA Model Types

- **Viscoelastic**
  A continuum-based linear material model that exhibits both elastic and viscous properties. Both temperature and strain-rate dependency of the mechanical response can be accounted for. This type of material model is only used for small strain problems.

- **Elastoplastic**
  A continuum-based material model that includes both elastic and plastic behavior of the material. Using this type of material model is used to model the permanent deformation and nonlinear behavior of the adhesive. Depending on the calibration it could include strain rate and temperature effects. Pressure-sensitive elastoplastic models are commonly used for polymers and adhesives to accurately reproduce the response under different loading conditions like tensile, compression, shear.

- **Finite Strain**
  A continuum-based nonlinear elastic material model that is derived from a strain energy density function. This type of material model is generally used to model the mechanical response of rubbers and elastomers with high elongations (large strains). The mechanical response under tensile, compression, shear, etc. loading conditions can be calibrated using this type of material model.

- **Cohesive Zone**
  A fracture mechanics-based material model that is used to model the crack separation within a bond line. The model is built using traction-separation laws for mode I, mode II and mode III of fracture while the mixed mode behavior is calibrated using data from mixed mode experiments. This type of model is used to predict cohesive failures within the adhesive bonds.

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