

ADVANCED CHEMICAL EXPOSURE ANALYSIS FOR POLYMERS & COMPOSITES

MELTI

RITICA

LIQUID

CONDENSATION

GAS

FREEZING APORIZATION

PLE POINT

CUBIC CHEMICAL & MATRIX

EQUATION OF STATES

GEOMETRY MESH BASED ON CUBIC ELEMENTS

APPLIED PERMEATION &

MECHANICAL RESPONSE

DEPOSITION

CheFEM 3 combines Calibrated Cubic Equations of State (EOS) with Finite Element Analysis (FEA) to predict crucial material properties, including:

- Permeability & Chemical Resistance
- Mechanical Response & Failure Prediction
- Rapid Gas Decompression (RGD) Behavior
- Fugitive Emission Assessment
- Microvoid & Corrosion Front Simulation
- Thermal & Chemical Spiking Effects
- Vented Annulus Analysis for Hybrids & Pipe-in-Pipes

KEY FEATURES

- Built-in Calibrated EOS (Sanchez-Lacombe, GIM, CPA)
- 8 Node Finite Element Mesher
- Abaqus & Ansys API Support (for direct coupling)
- Automated Matrix Mechanical Data Processing
- Exports Analysis Data as CSV Files
- Server-Based Modern Application (no local installations)
- 24/7 Support & Weekly Updates



Empowering engineers with cutting-edge material simulation!

TRUSTED BY INDUSTRY LEADERS



