

## Altair Inspire™ Extrude Polymer

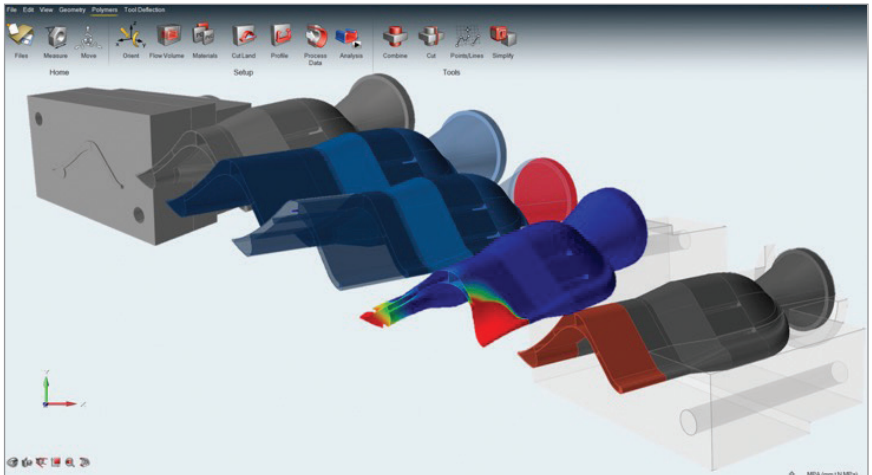
### Streamlined Polymer Extrusion Simulation

Altair Inspire Extrude Polymer allows users to enhance and optimize the extrusion process to drastically improve productivity and quality.

Fast, Easy, Accurate, and Affordable

# Powerful and Accurate Extrusion Simulation without the Complexity

Altair Inspire Extrude Polymer has been designed with its end users in mind. The entire simulation environment has been enhanced to address a wide variety of users from beginners to experts and from product engineers to process designers, allowing them to perform simulations quickly and accurately.

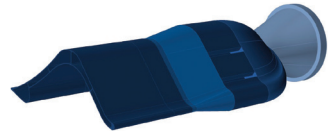
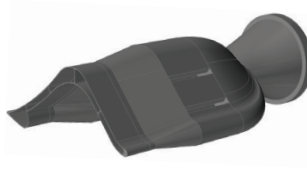
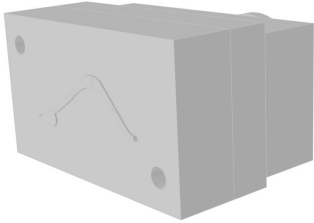


"With Altair Inspire Extrude's newly designed interface I have cut my modeling and preprocessing time on average from 2 hours to 10 minutes."

*Jeff Skinner*  
Sales & Technical Representative  
Thumb Tool & Die Engineering

# Polymer Extrusion Simulation

## Extrusion Process



**Import & Orient**

**Extract Flow Volume**

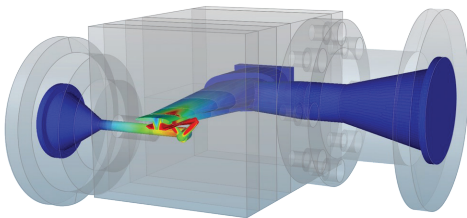
**Define Material & Organize**

## Improve Quality

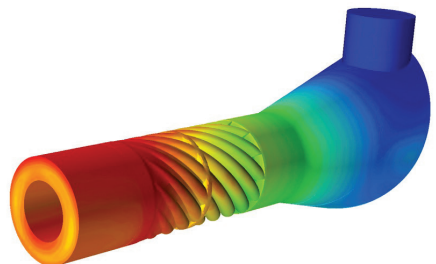
Predict and fix visible and invisible extrusion defects upfront before production.

- Profile Distortion
- Die Swell
- Coextrusion
- Coextrusion with Metal Insert

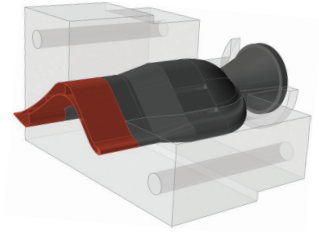
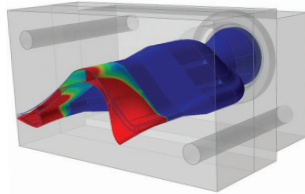
Altair Inspire Extrude Polymer Provides Guided Templates for:



Coextrusion



Spiral Dies



Define Process Conditions

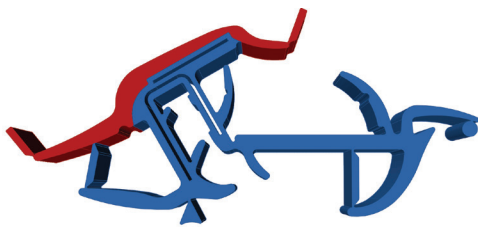
Simulate & Analyze

Extrude

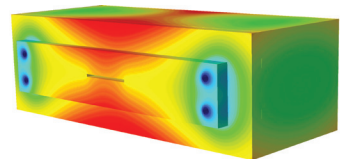
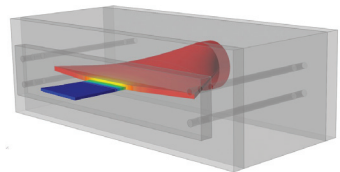
Improve Productivity

Identify potential causes of production failures and rectify them upfront.

- Tool Deflection
- Clam Shelling
- Die Wear

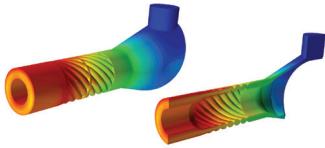


Coextrusion with Metal Inserts

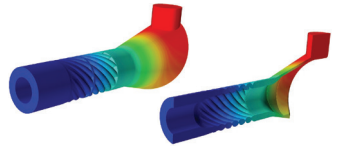


Film Extrusion

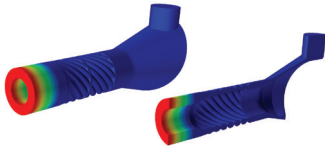
## Powerful Result Visualization



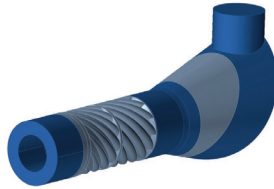
Temperature



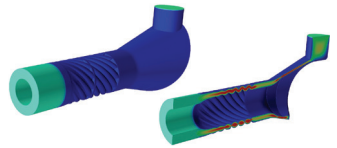
Pressure



Displacement



Spiral Die



Velocity

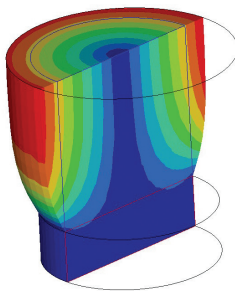
## Start Today

Through a highly intuitive interface, users can benefit from a quick ramp up in detecting extrusion defects early, resulting in both time and cost savings.

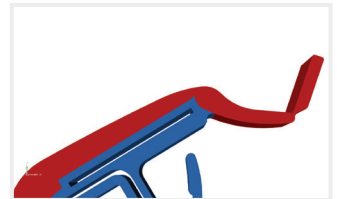
## Inspire Extrude Polymer Identifies Costly Defects Such as:



Profile Distortion



Die Swell



Coextrusion Interference

## Altair Inspire Extrude Polymer Benefits

Altair Inspire Extrude Polymer is a simulation based environment designed to help polymer extrusion companies meet the ever increasing demands to produce complex profiles at reduced costs. Altair Inspire Extrude Polymer is a virtual press in which users can visualize material flow and temperature inside a die during extrusion and make necessary changes to ensure balanced flow, while identifying and eliminating product defects.

### Detect Visible Defects:

- Profile distortion
- Uneven wall thickness
- Die swelling
- Poor quality due to overheating

### Detect Invisible Defects:

- Dead zones
- Weld lines in coextrusion
- Overheating of polymers

### Improve Profitability:

- Push production rate by optimizing process parameters upfront
- Detect and fix die deflection and clam shelling
- Detect and decrease die wear and excessive heating
- Minimize pressure fluctuations inside die to maintain uniform flow for a consistent production schedule

## Minimal Training With Maximum Benefit

By focusing on ease of use and managing all complexities in the background, Altair Inspire Extrude Polymer eliminates the costly and time consuming training most other extrusion simulation software requires.

Altair Inspire Extrude Polymer  
is available for:





Windows 10, 8.1, 7

## Supported Languages

Chinese	Japanese
English	Korean
French	Portuguese
German	Spanish
Italian	

Learn more at  
[altair.com/InspireExtrudePolymer](http://altair.com/InspireExtrudePolymer)

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