

Optimize plastic design with Moldflow.

Fast, accurate, and flexible plastic injection molding simulation tools to help CAE analysts, designers, and engineers make great products.



The Standard for injection molding simulation

Moldflow Insight gives top manufacturers the tools needed to overcome the unknown challenges of developing plastic injection molded parts. Through the validation and optimization of plastic parts and injection molds early in the design phase, it is possible to bring innovative products to market faster.

Moldflow Insight guides you through the simulation setup and results interpretation to show how changes to part design, mold geometry, and processing conditions will affect manufacturability. Simulation provides the ability to experiment with "what-if" scenarios before cutting steel and molding parts. This ability to evaluate different scenarios throughout the entire product development cycle results in higher quality products.

Autodesk Moldflow Insight software allows manufacturers to "get it right the first time," to help avoid mold rework, reduce physical prototypes, and minimize both cost and time delays that could occur during the manufacturing phase.

Advanced cooling

Capture advanced cooling techniques and layouts, such as conformal cooling and transient heat calculations. Iterate on the cooling channel layout and the cooling process to produce high-quality products with short cycle time. Simulate advanced cooling technologies, like rapid heating and cooling. Evaluate the effect of highly conductive materials, or heating elements and thermal pins, on the cycle time and product quality.

Part optimization

Include geometry parameter ranges to assess how geometry modifications affect the manufacturing process. Determine which input process variables, such as mold temperature or injection time, can influence the quality of the part. With automated geometric optimization, you don't have to manually iterate on different wall thicknesses to determine the best design. Moldflow displays several different combinations for you to choose from. Understand the stability of your process, and identify the major factors that influence product defects or machine molding limits.

Advanced processes

Moldflow Insight gives you access to specialized processes that help increase innovation. Create quality parts for applications that conventional injection molding can't address.

Subscription benefits**

Subscribe to Moldflow to get flexibility and support benefits. With your subscription, enjoy:

- Technical support: Get access to support specialists, remote assistance, and online resources.
- Up-to-date software: Stay competitive with instant access to the latest features.
- Flexible term lengths: Use the software you need as long as you need it with terms from one month to multiple years.
- Administrative tools: Easily manage software licenses, seats, and usage.







"The cycle time for getting a design ready is very important for us. Using simulation from the beginning of the project has helped save between two and three weeks."

-Silvestre Cano, Schneider Electric

Simulation Advisers	Adviser Ultimate	Insight Ultimate
Design advice	\checkmark	-
Design adviser	√	-
Results adviser	√	-
Cost adviser	\checkmark	-

Simulation Capabilities	Adviser Ultimate	Insight Ultimate
Filling	\checkmark	$\checkmark\checkmark$
Sink marks and weld lines	√	√√
Molding window	√	✓
Gate location	√	✓
Shared views*	\checkmark	✓
Packing	\checkmark	$\checkmark\checkmark$
Cooling	√	$\checkmark\checkmark$
Warpage	\checkmark	$\checkmark\checkmark$
Fiber orientation	\checkmark	$\checkmark\checkmark$
Cold & hot runners	\checkmark	√√
Runner balancing	\checkmark	✓
Venting analysis	-	✓
Heating elements	-	✓
Insert overmolding	-	✓
In-mold label	-	✓
Two-shot overmolding	-	✓
Core shift	-	✓
Crystallization analysis	-	✓
Design of experiments (DOE)	-	✓
Transient mold cooling or heating	-	✓
Conformal cooling	-	✓
Rapid temperature cycling	-	✓
Induction heating	-	✓
Wire sweep, paddle shift	-	✓

Molding Processes	Adviser Ultimate	Insight Ultimate
Thermoplastic injection molding	✓	✓
Gas-assisted injection molding	-	\checkmark
Injection-compression molding	-	\checkmark
Co-injection molding	-	\checkmark
Bi-injection molding	-	\checkmark
Chemical Blowing Agent (CBA)	-	\checkmark
Microcellular injection molding with and without core back	-	✓
Birefringence	-	\checkmark
Coolant flow analysis	-	\checkmark
Powder injection molding	-	\checkmark
Resin transfer (RTM) and Structural reaction (SRIM) injection molding	-	\checkmark
Rubber, liquid silicone injection molding	-	\checkmark
Multiple-barrel reactive molding	-	\checkmark
Reaction injection molding	-	\checkmark
Microchip encapsulation	-	\checkmark
Underfill encapsulation	-	\checkmark
Compression molding	-	\checkmark
Multiple-barrel thermoplastics injection molding	-	\checkmark

Included Software & Services [†]	Adviser Ultimate	Insight Ultimate
Autodesk Helius PFA*	-	✓
Autodesk Fusion 360*	√	✓
Autodesk Moldflow Communicator	√	✓
Autodesk Vault	√	✓
Moldflow Design	√	-

"Autodesk Simulation Moldflow has unique modules and functions that reflect a commitment to the plastic industry and helped us achieve perfection."

-Mr. Ashish Desai, Polysmart Technologies

 \checkmark \checkmark indicates increased feature functionality

* Included with an active Moldflow subscription.

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