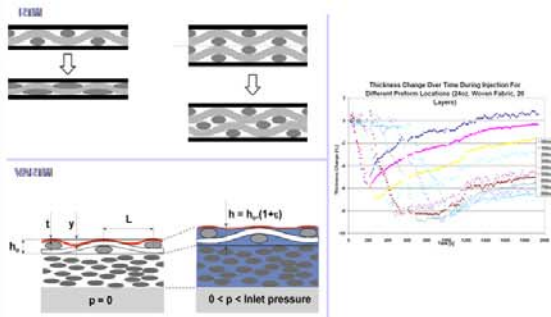


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Current Issues: Preform and Distribution Media Compaction



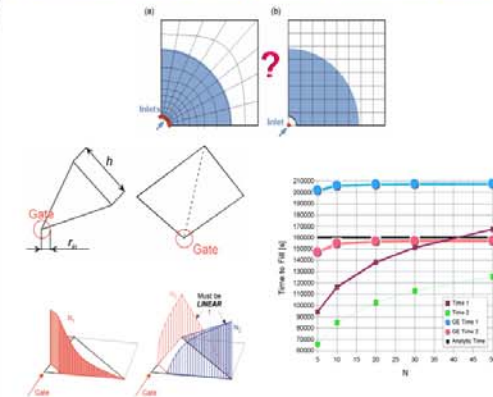
- In many Liquid Molding Processes the preform thickness changes during the injection.
- Permeability and fiber volume fraction changes accordingly.

LIMS Main Features



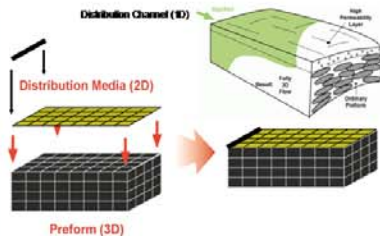
- LIMS (Liquid Injection Molding Simulation) models the resin injection into porous preform.
- The mold geometry may be a three-dimensional solid, a three-dimensional shell, or any combination of these and 1D "runner" elements. Multiple injection gates, vents, sensors, and inserts are allowed.
- The role of preform deformation may be included into simulation.
- The user may control the simulation through a built-in programming language.
- All solution data are available to the interpreter during the simulation, thus effectively simulating a large array of sensors.
- Dry spot prediction is available.
- The heat transfer solution is currently available for two-dimensional geometry.
- Output of the results is available at any time during execution of the program.
- Program can be integrated with third party software. The simulation Engine may be called from any program that supports user dynamically linked libraries.

Current Issues: Injection Gate Modeling



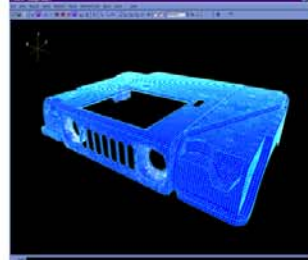
- Geometrically accurate modeling of injection ports is not feasible in many cases.
- "Smart" Elements allow accurate inlet modeling with minimal user input.

Distribution Media Modeling



- Distribution Media and Injection Runners are best modeled using 1- and 2-D Elements.
- User Interface allows generation of these elements for existing part mesh.

Graphical User Interface



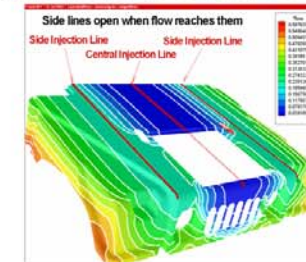
- Graphical User Interface provides intuitive way to prepare and modify simulation data and to execute simulations.
- Common RTM modeling tasks are easily accessible.
- Simulation results can be visualized.

Installation and Documentation



- Standard installation package provided for MSWindows-based systems.
- Multimedia and conventional tutorials are included.

Simulation of Sequential Injection Into Complex Part



Acknowledgements

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