

YOKOI LAB.

[Ultimate Injection Molding Technology and Pulp Injection Molding]

Department of Mechanical and Biofunctional Systems

<http://www.u-tokyo.ac.jp/~hiyokoi/>

Polymer Processing

Department of Precision Engineering

Recent Topics on Visualization and In-process Measurement Technologies for Injection Molding

The Yokoi Laboratory is conducting the following projects “Ultimate Injection Molding Technology” and “Pulp Injection Molding (PIM)”. Visualization themes and in-process measurement technologies are introduced through the demonstration of recent analytical results and video visualization images. Development of PIM samples are also reported using typical molded samples on display.

Visualization Analysis on Plastication Process of Glass Fiber Reinforced Resin by Glass-inserted Heating Cylinder

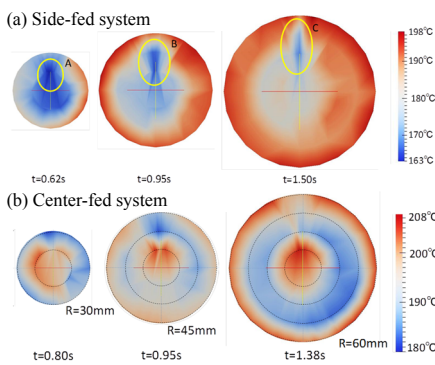
Analysis of Cavity Filling Phenomena inside Mold with Hot Runner System

Visualization Analysis of Melt Flow Behavior inside Hot-runner Manifold

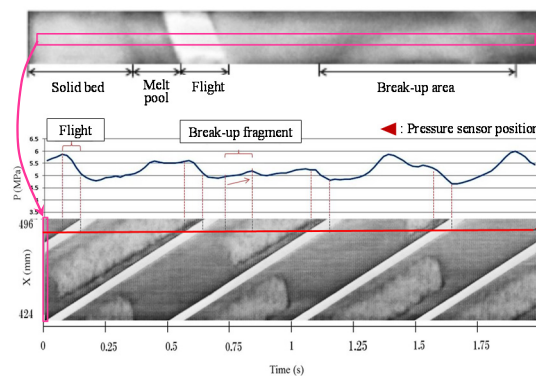
Visualization Analysis of Gas Vent Behavior Using Laser-Light-Sheet Technique

Visualization Analysis of Inner Burn-mark Generation Phenomenon

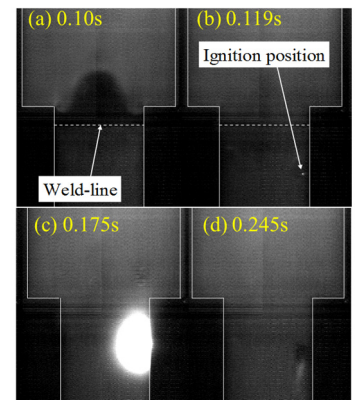
Development of New Products on Pulp Injection Molding



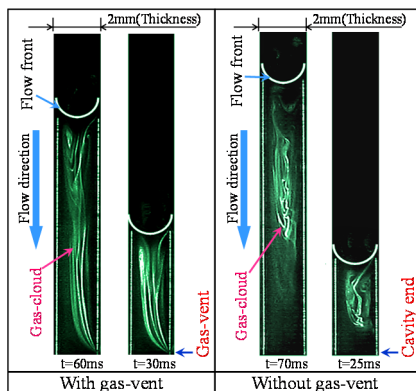
Change of temperature distribution with time after injection starts in hot runner mold



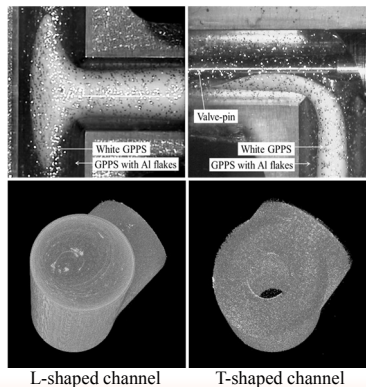
Plastication process of glass fiber reinforced PP at compression zone



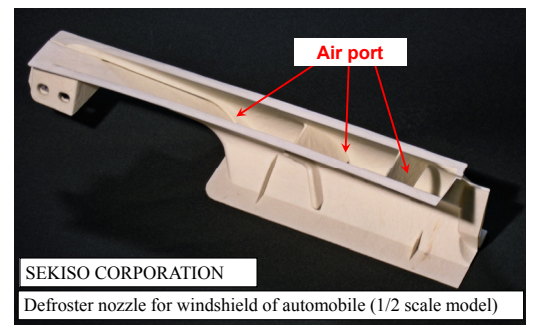
Time-sequential images showing the inner burn process



Gas-cloud behavior under different gas-vent conditions



Visualization images of melt flow behavior inside hot-runner manifold



New products on pulp injection molding