

YOKOI LAB.

[Ultimate Injection Molding Technology and Pulp Injection Molding]

Department of Mechanical and Biofunctional Systems

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

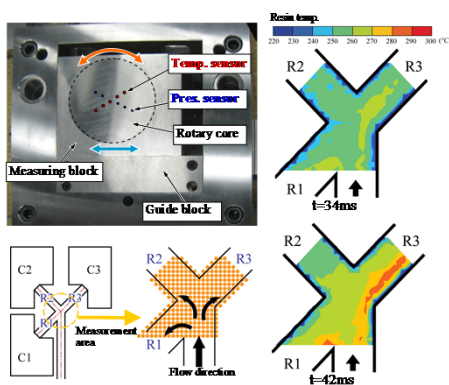
Research Field ● Polymer Processing

Department of Precision Engineering

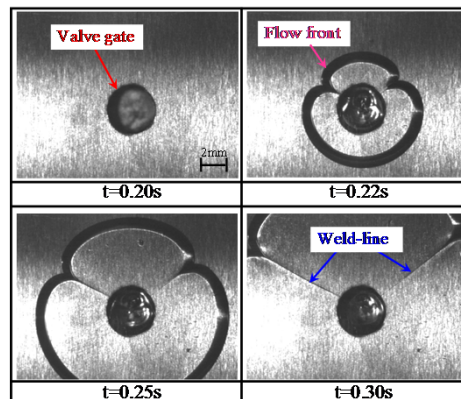
Recent Topics on Visualization and In-process Measurement Technologies for Injection Molding

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 and its application to extrusion molding are also reported using typical molded samples on display.

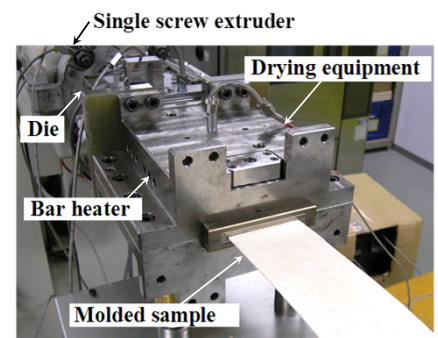
- ◆ Measurement of Melt Temperature and Cavity Pressure Distributions Based on Rotary Cylinder Structure
- ◆ Analysis of Cavity Filling Phenomena inside Mold with Hot Runner System
- ◆ Analysis of Foam Morphology of Microcellular Injection Molded Products Using Supercritical Fluid
- ◆ Visualization Analysis of Long Carbon Fiber Orientation Process in Injection Molding
- ◆ Development of Pulp Extrusion Molding Technology
- ◆ Development of New Products on Pulp Injection Molding



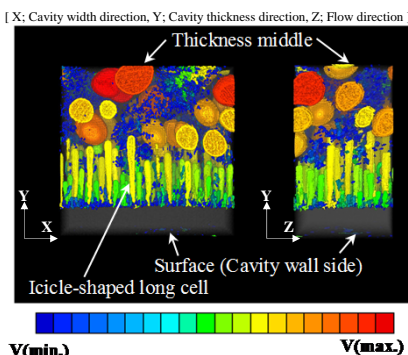
Measuring unit of pressure/temperature distribution and measuring result of temperature distribution at Y-shaped runner split portion



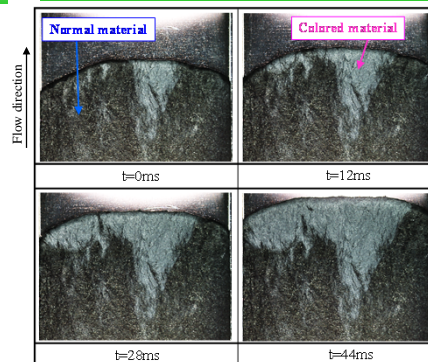
Visualization images of cavity filling phenomenon around the valve gate



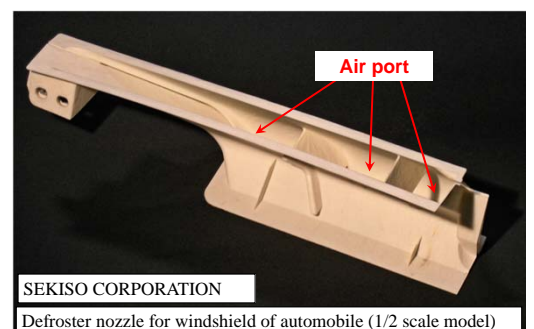
Pulp extrusion molding technology



X-ray micro-tomography images of Microcellular Injection Molded Product



Visualization images of cavity filling process obtained by colored-marking method



SEKISO CORPORATION

Defroster nozzle for windshield of automobile (1/2 scale model)

New products on pulp injection molding