Autodesk® Moldflow® Insight 2012

AMI Underfill Encapsulation Analysis Results

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Underfill Encapsulation analysis results

1

This help topic provides an overview of the results generated by an Underfill Encapsulation analysis.

Text based results

The following table lists the text results generated for an Underfill Encapsulation analysis.

Results
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Results Summary
Analysis Check

Graphical results

The following table lists the filling and curing graphical results generated for an Underfill Encapsulation analysis, and indicates whether each result is supported for the following analysis technologies:

- Midplane
- Dual Domain
- 3D

For more information about a result, including how to interpret the display, click on the result name.

Flow (Fill+Pack / filling and curing phase) results	Analysis technology
Fill time	
Clamp force	
Pressure	
Shear rate, bulk	
Shear stress at wall	
Bulk temperature, nodal	
Cured layer fraction	

Flow (Fill+Pack / filling and curing phase) results	Analysis technology
Air traps	
Pressure at injection location	
Pressure at V/P switchover	
Temperature at flow front	
Bulk conversion (node)	
Weld lines	
Weld and meld lines	
Conversion at node	
Density	
Extension rate	
Polymer filled region	
Shear rate (3D)	
Shear rate, maximum	
Temperature (3D)	
Unfilled cavity[1]	
Velocity (3D)	
Viscosity	

[1] This result is only available if a short shot occurs during the analysis.

Underfill encapsulation analysis log

2

The Underfill encapsulation analysis log is a text report that lists the inputs that you used for the analysis, including solver parameters, material data, process settings and model details, followed by the analysis progress tables.

There is a separate table for the filling phase, and for the curing phase of the analysis.

This text report generated by the Underfill Encapsulation analysis.

Using the analysis log

The analysis log for an Underfill Encapsulation analysis can be used to determine whether the part filled completely during injection before the curing phase began.

Look at the analysis progress table for the injection phase and check whether 100% of the cavity volume filled. If this did not occur, then you may see a message stating that the maximum machine injection pressure was reached and a short shot occurred.

Things to look for

Short shot If this problem occurs, try changing the following process settings.

1. Initial encapsulant temperature,
2. Substrate temperature.