Opptum Engineering Solution Pvt. Ltd.

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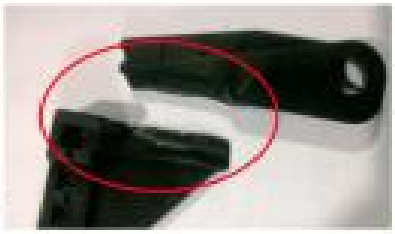
Moldflow Simulation For Product Optimization

Objective:
Injection Molding Simulation Was Performed To Evaluate Possible Solutions.
Analysis Performed:
✓ Mold Filling Analysis
Want To Solve Crack Issue, and Any Potential Filling Issues



Breakage in Handle at other side of gate location.

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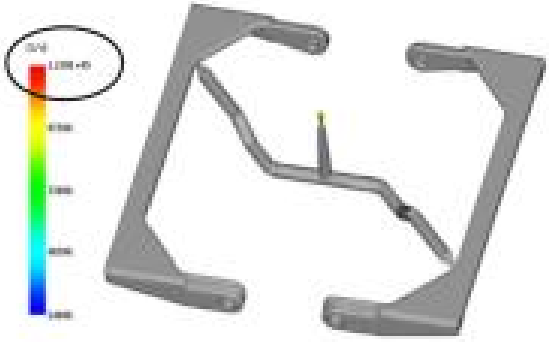
Pre Processing:
Mesh Type: 3D
Material : PP.

The initial iteration shows there is high value of shear rate. Main reason behind that is Gate size and location.



Higher value of shear rate observed in the component.

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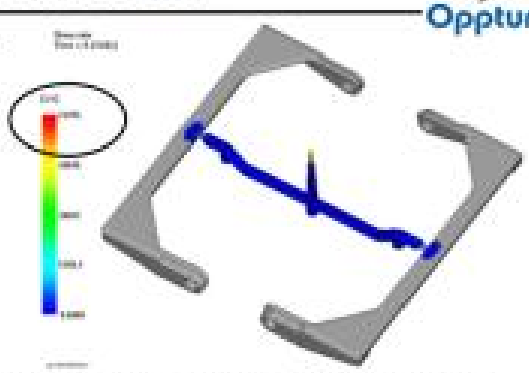

Shear rate is within manufacturer recommended limit of material 24000 1/s.

Moldflow Simulation of Handle Showed the serious crack issue. Due to smaller size of gate shear rate exceeds the limit. At higher shear rate material lost its original properties, due to shear heating.

The initial couple of iteration shows the higher shear rate value at the concern area. Our expertise have suggested to change the gate size and gate location.

Using Autodesk Moldflow Flex 2016, we have solved the crack issue by increasing Gate size and Changing Gate location.