

# FAST Incremental Formability Analysis Report

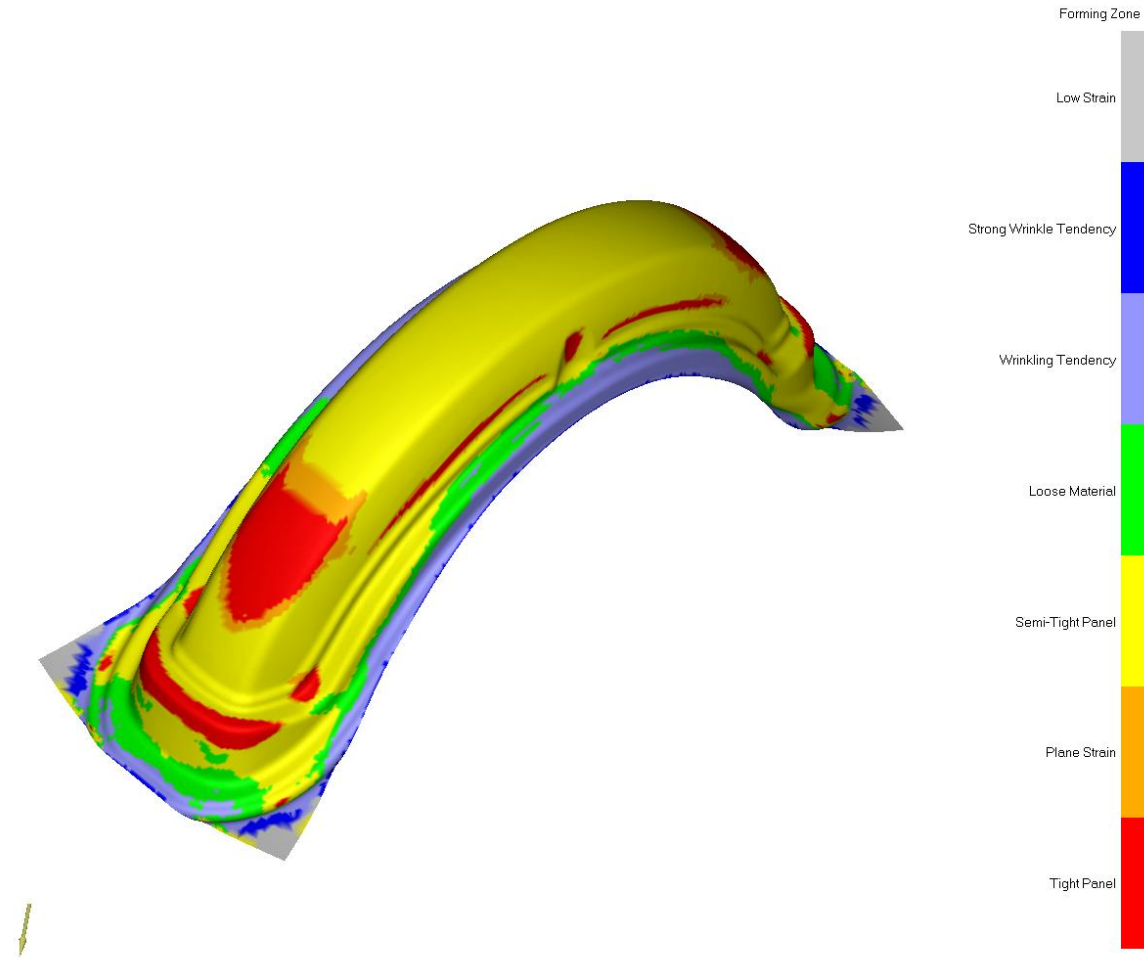


<b>Project Name</b>	final-simulation-7f-c		
<b>File Name</b>	N/A		
<b>FS Version</b>	FormingSuite\2020.0.0	<b>Date</b>	10/5/2020 6:04:00 PM

# Forming Results

Forming Zone

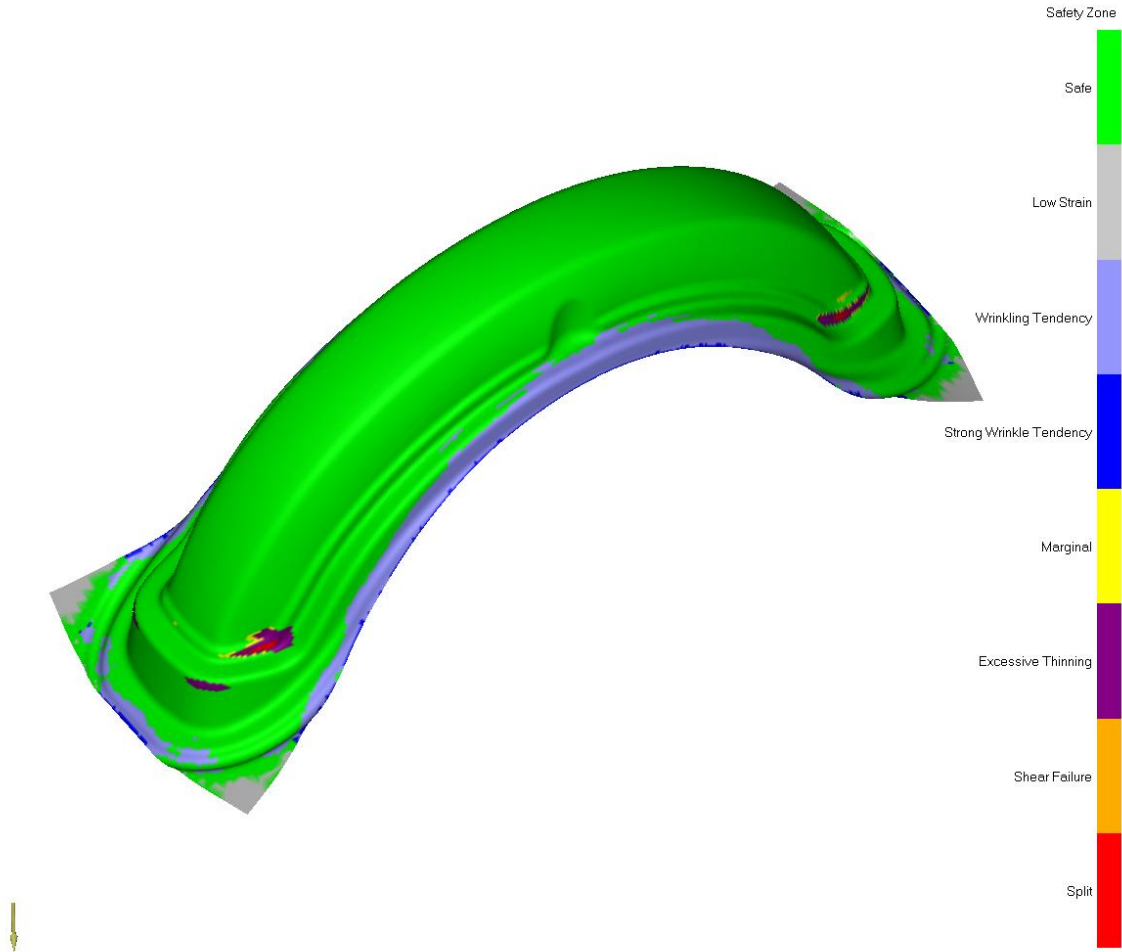
Comments



# Forming Results

Safety Zone

Comments




# Forming Results

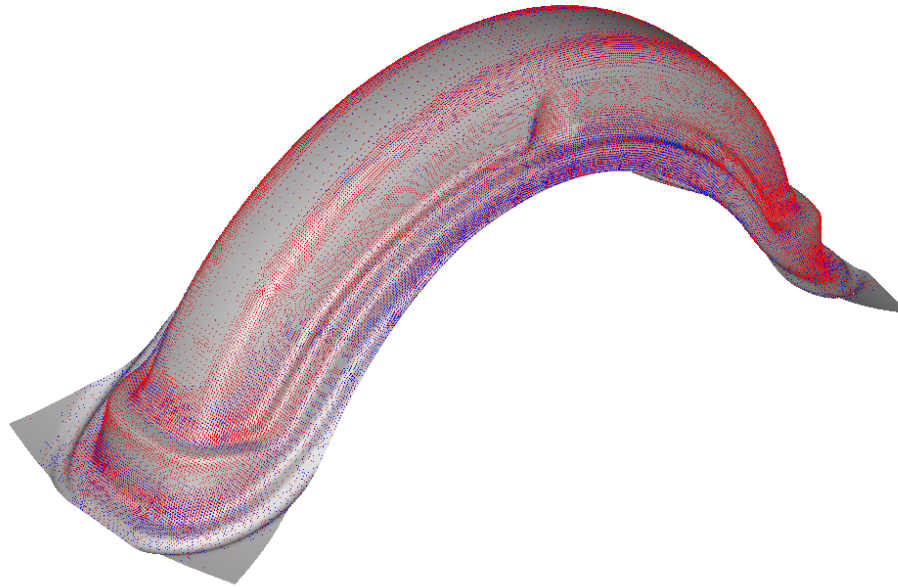
Principal Strain Direction

Comments

Principal Strain Direction

Tension 

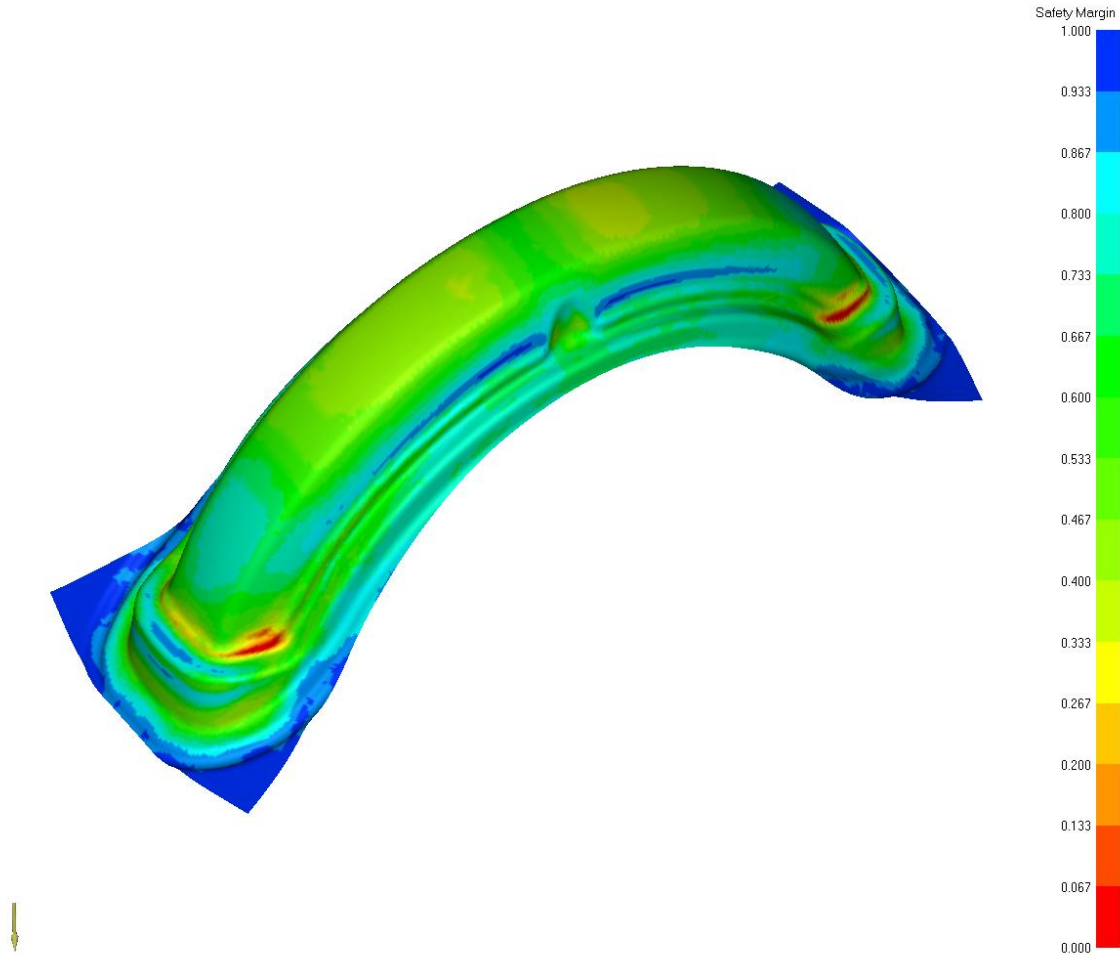
Compression 



# Forming Results

Result Safety Margin Min: -0.16 Max: 1.00 Unit:

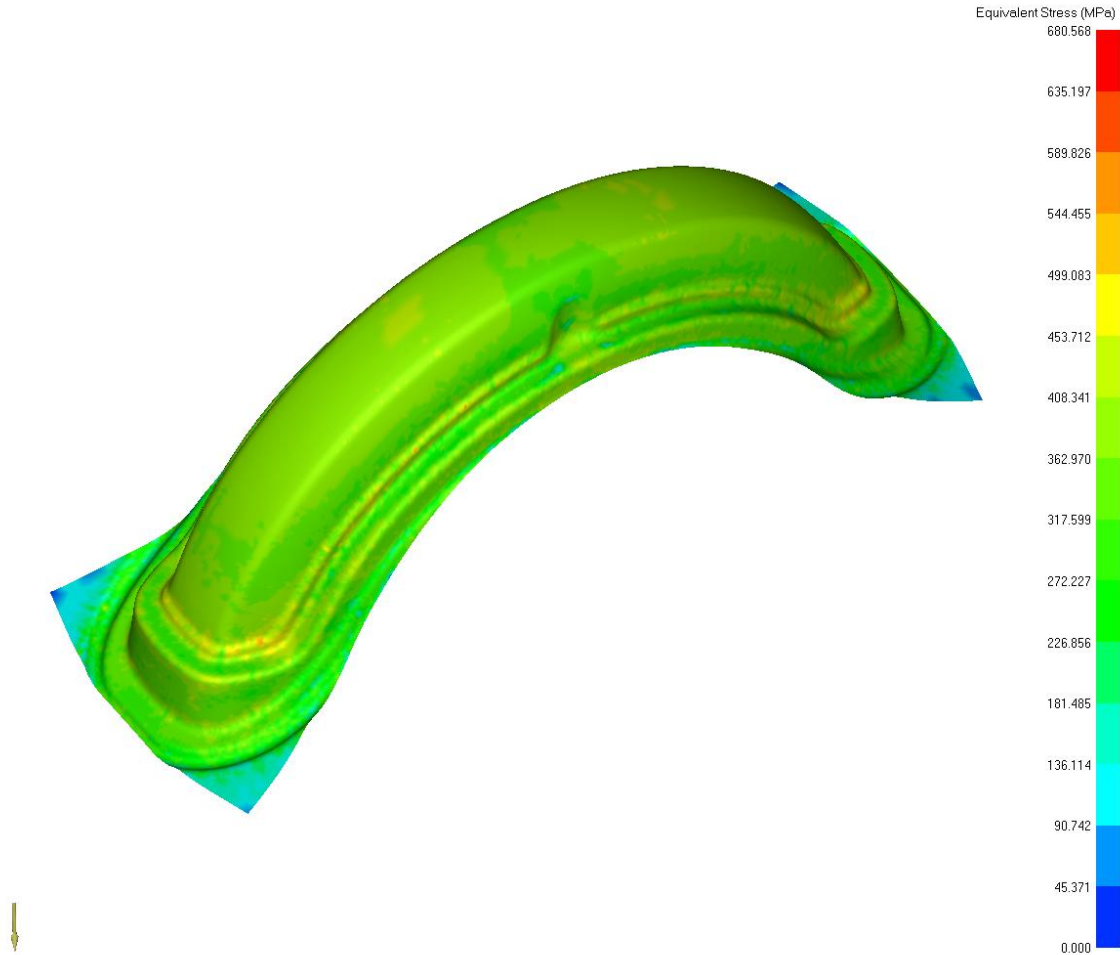
Comments



# Forming Results

Result True Equivalent Stress Min: 44.524 Max: 621.179 Unit: MPa

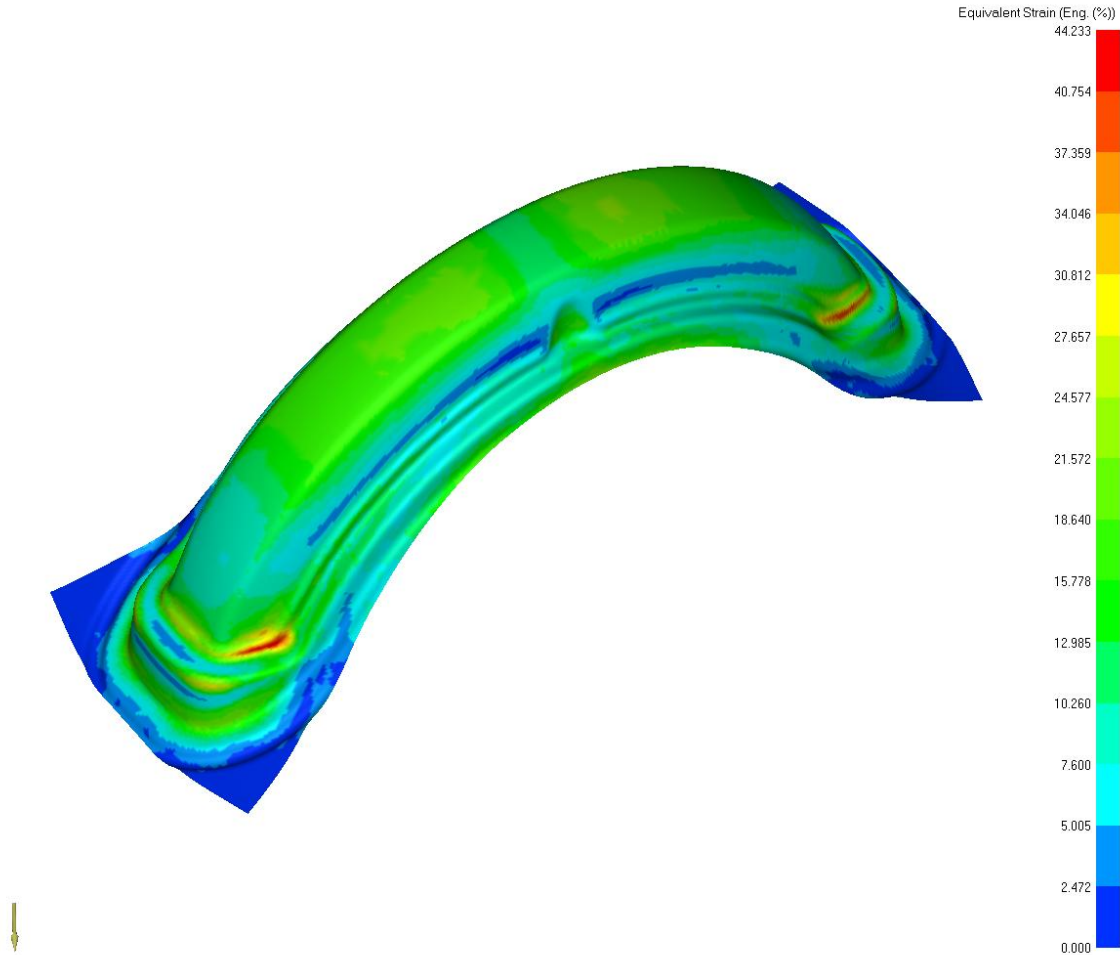
Comments



# Forming Results

Result Equivalent Strain Min: 0.015 Max: 44.233 Unit: Eng. (%)

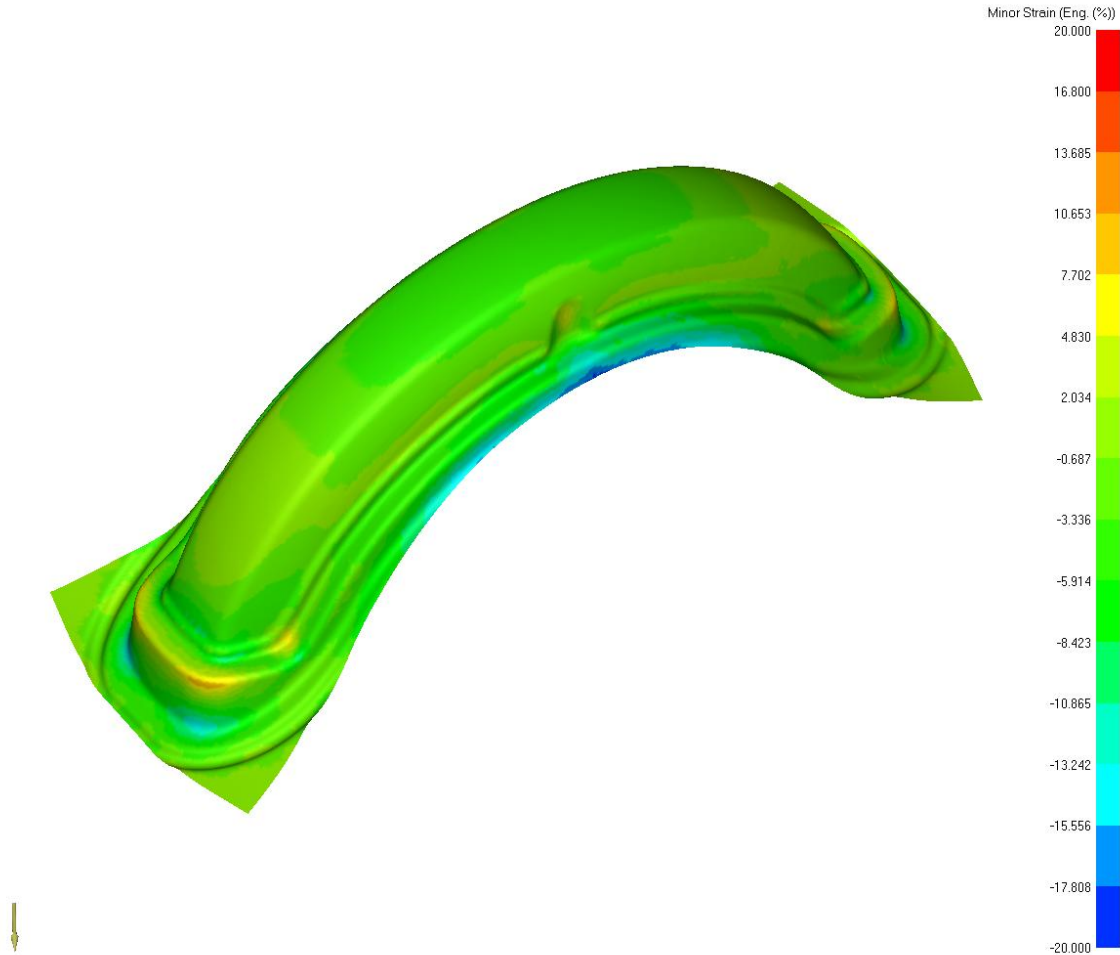
Comments



# Forming Results

Result Minor Strain Min: -18.245 Max: 10.365 Unit: Eng. (%)

Comments

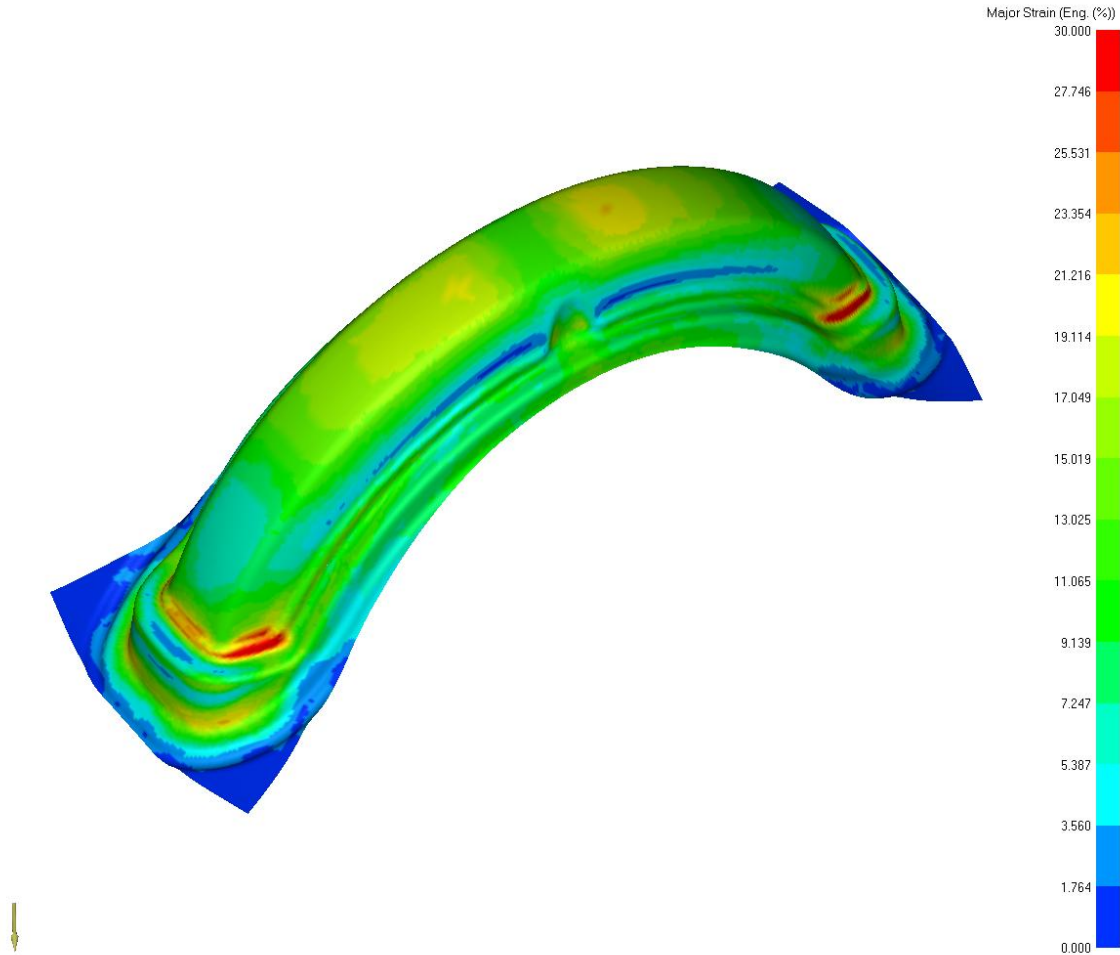




# Forming Results

Result Major Strain Min: -0.014 Max: 38.765 Unit: Eng. (%)

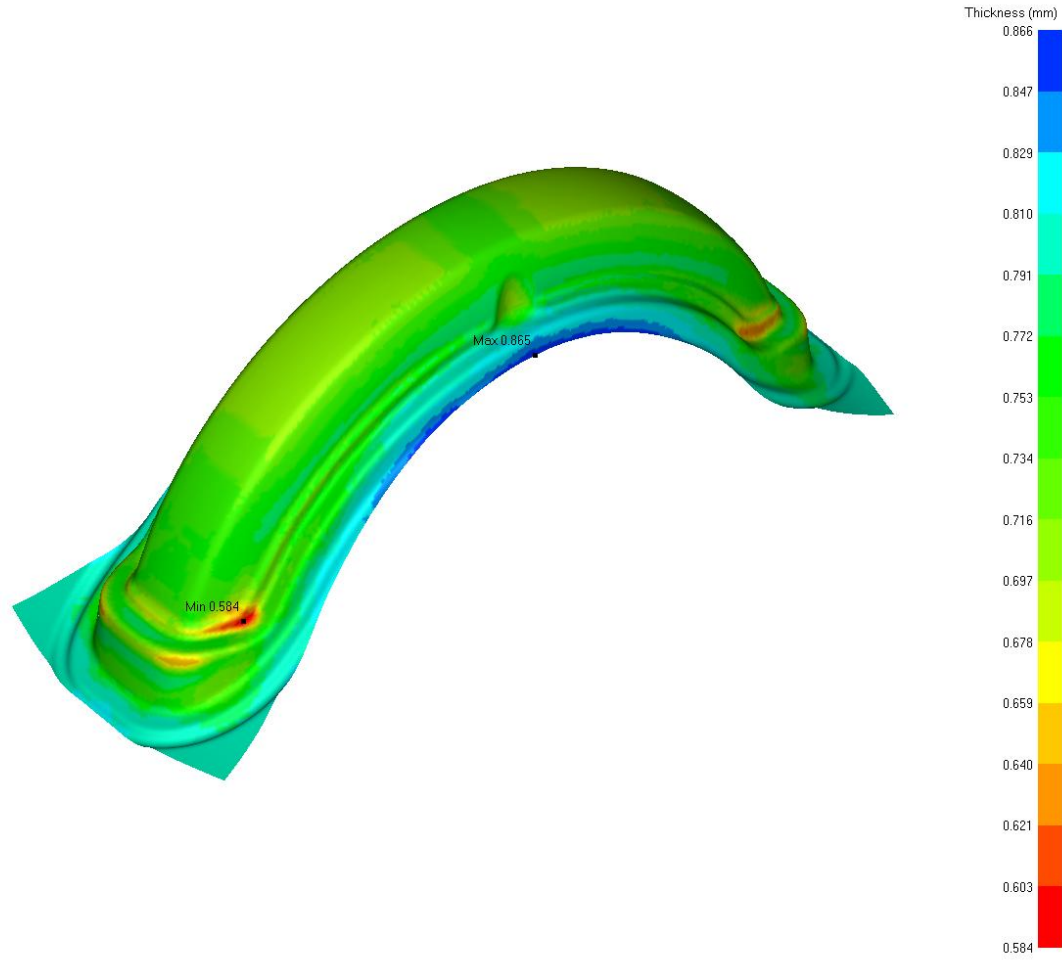
Comments



# Forming Results

Result Thickness Min: 0.584 Max: 0.865 Unit: mm

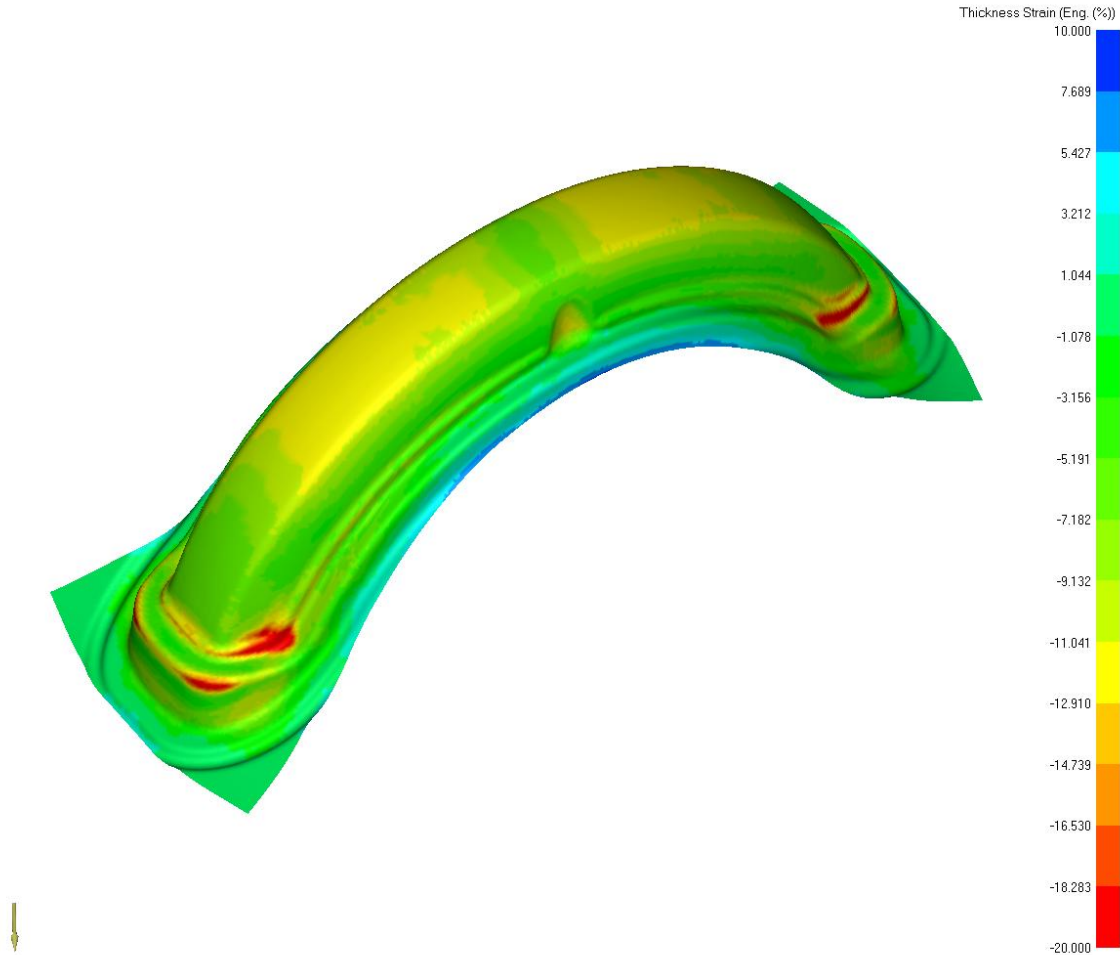
Comments



# Forming Results

Result Thickness Strain Min: -26.601 Max: 8.169 Unit: Eng. (%)

Comments



# Analysis Setup

Incremental 1

Operation Name	Process	Binder / Pad Force (N)	Draw Beads	Pilot Holes	Constrained Edges	Template	Friction
OP 10	Forming	150000.00 0				Fast	0.12

# Material Properties (1)

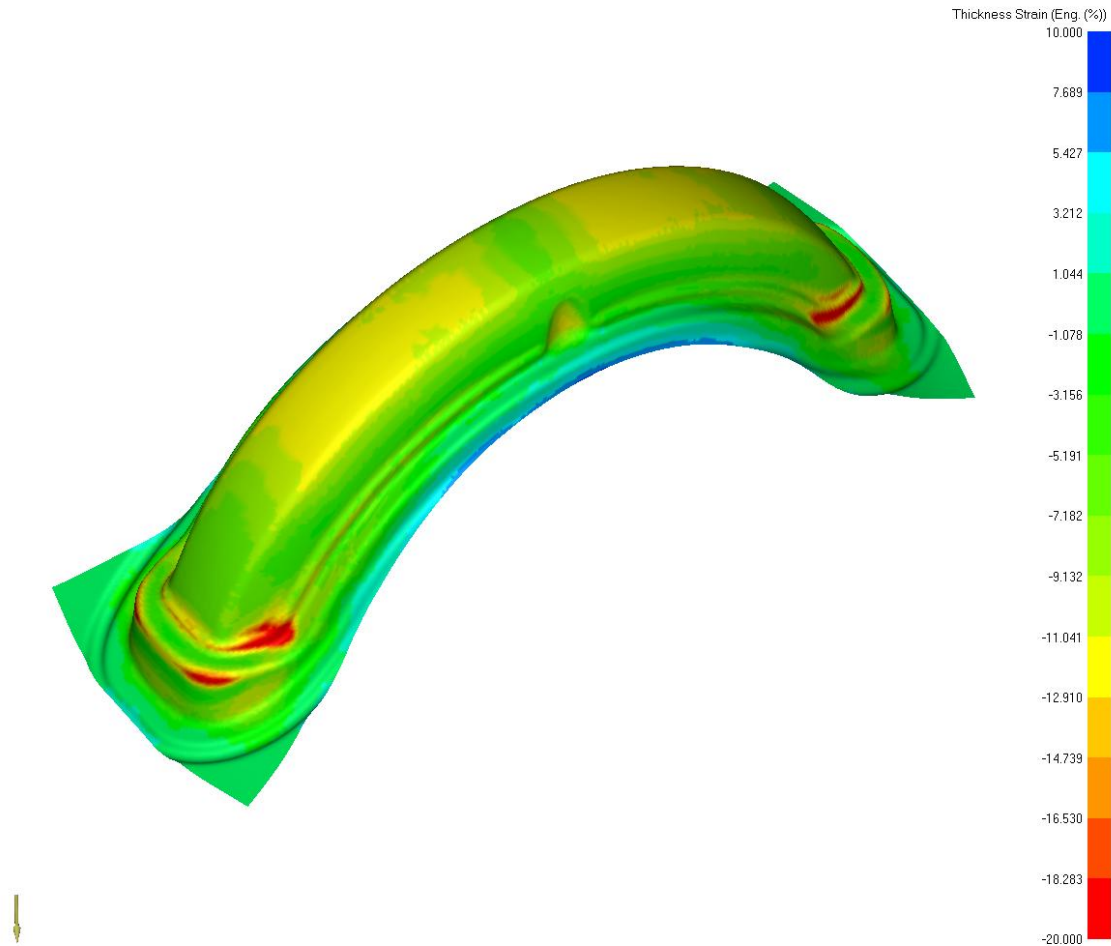
Incremental 1

Property	Value
Material Name	DC04
Thickness	0.800 mm
N-Value	0.18
R-bar	1.60
R0	N/A
R45	N/A
R90	N/A
K-Value	N/A
UTS	310.000 MPa
Yield Stress	175.000 MPa
FLD0	29.428 Eng. (%)
Elastic Modulus	205000.010 MPa
Poisson's Ratio	0.30
Thinning Limit	20.000 Eng. (%)
Shear Limit	70.000 Eng. (%)
Density	7809.994 kg/m3

# Forming Results

Incremental 1

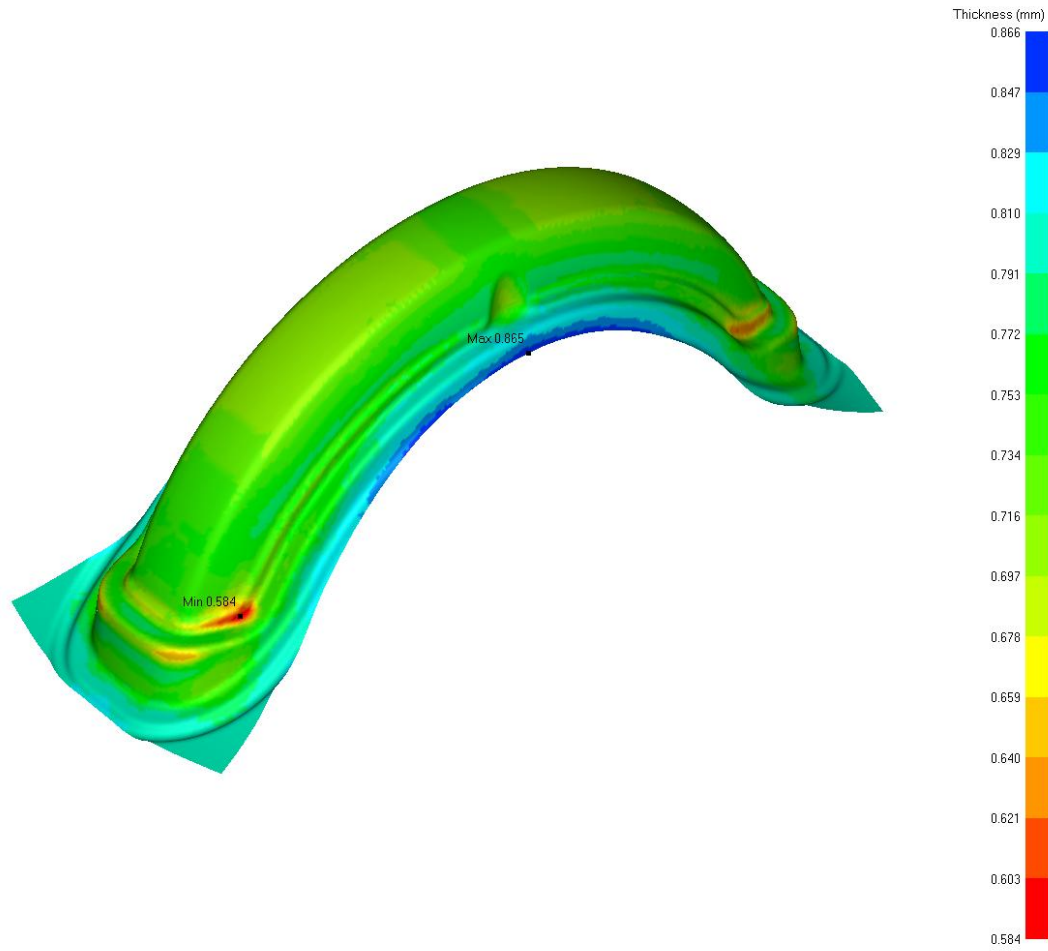
Result Thickness Strain Min: -26.601 Max: 8.169 Unit: Eng. (%)



# Forming Results

Incremental 1

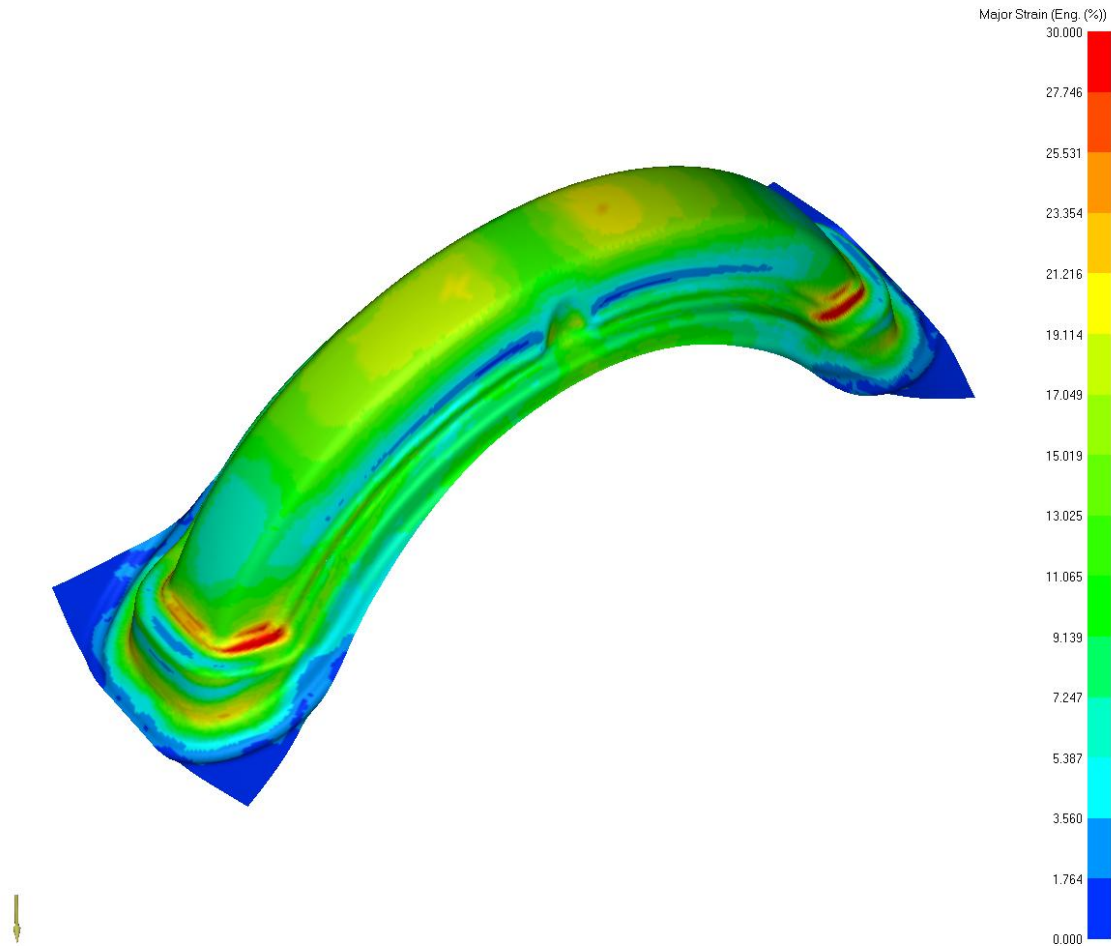
Result Thickness Min: 0.584 Max: 0.865 Unit: mm



# Forming Results

Incremental 1

Result Major Strain Min: -0.014 Max: 38.765 Unit: Eng. (%)

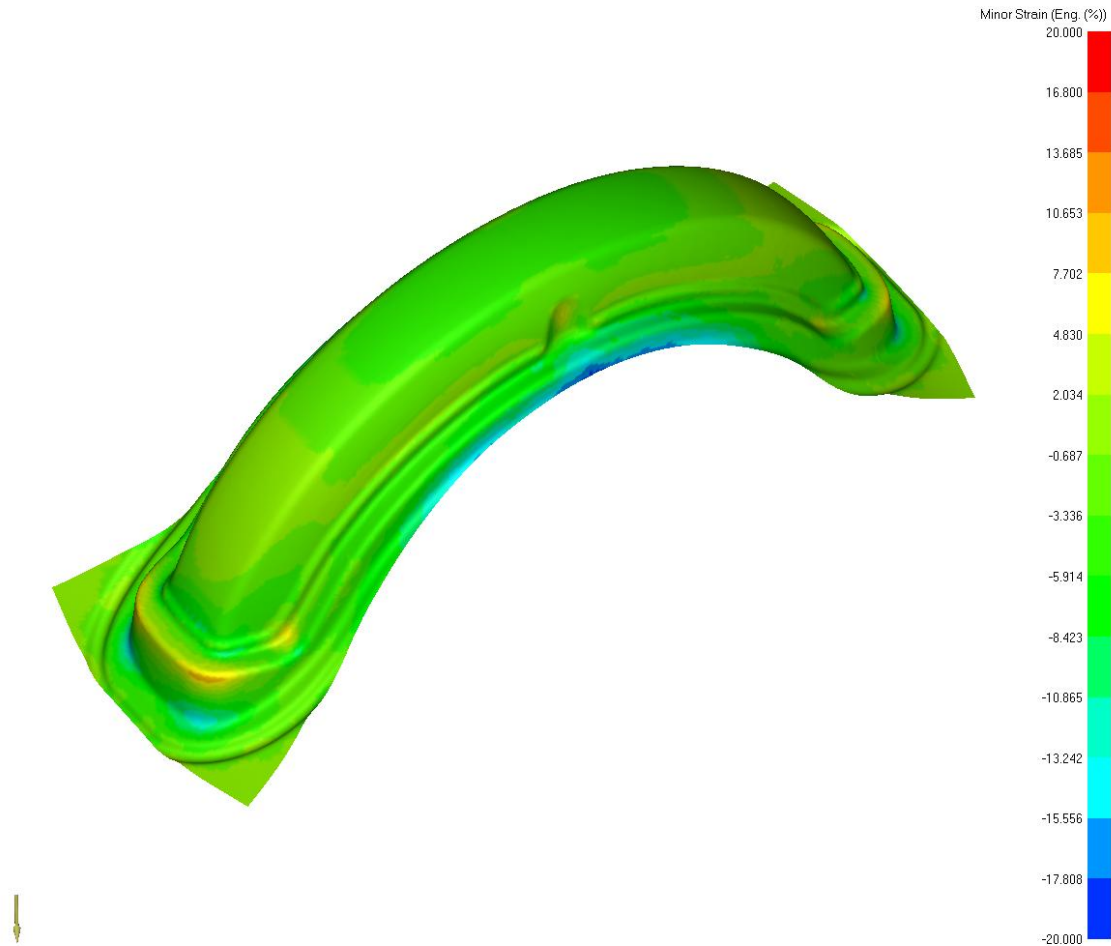




# Forming Results

Incremental 1

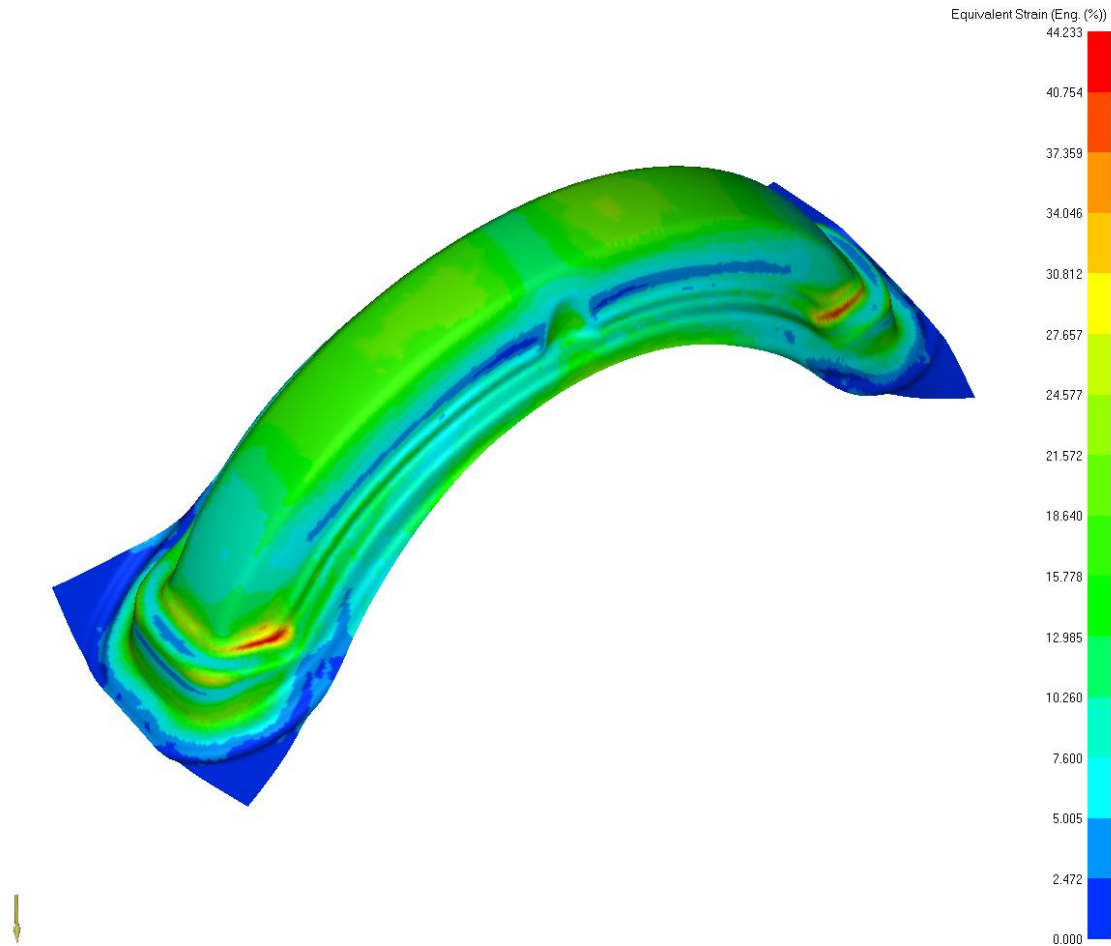
Result Minor Strain Min: -18.245 Max: 10.365 Unit: Eng. (%)



# Forming Results

Incremental 1

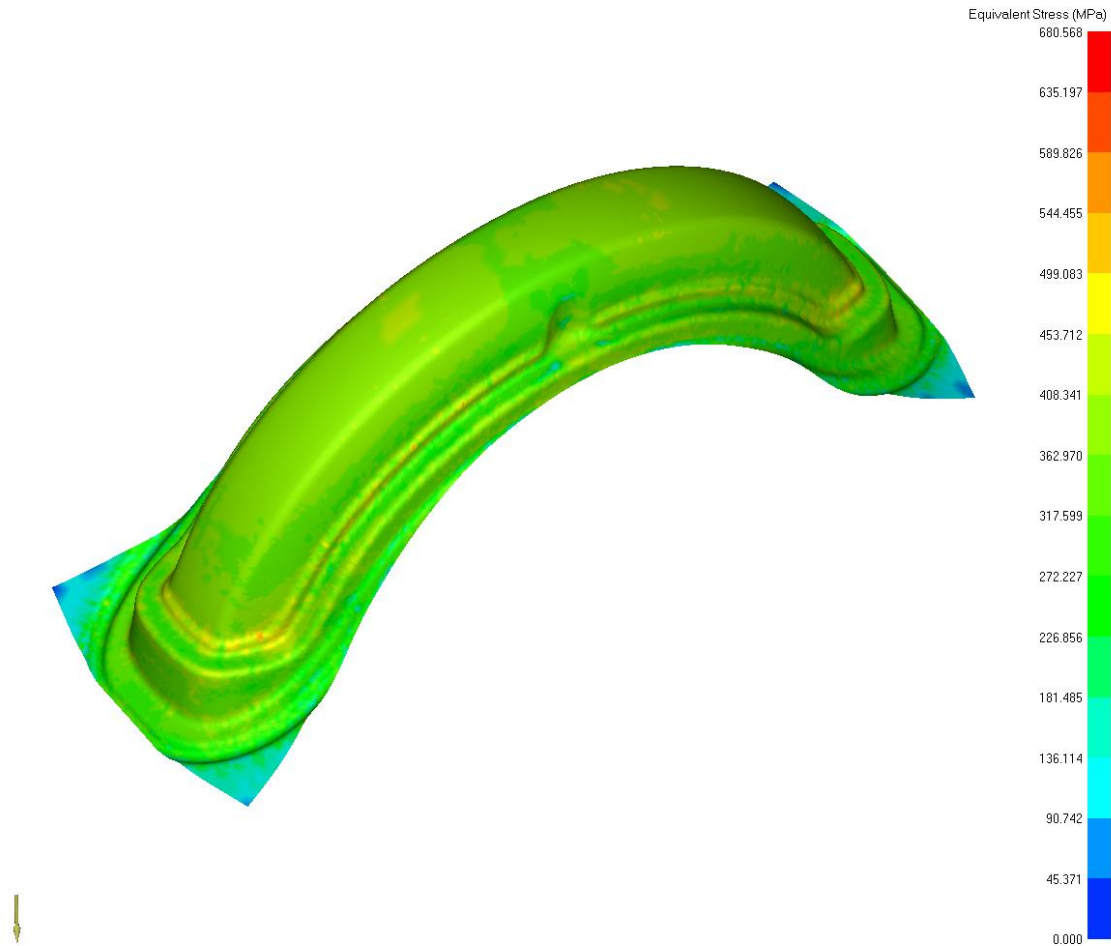
Result Equivalent Strain Min: 0.015 Max: 44.233 Unit: Eng. (%)



# Forming Results

Incremental 1

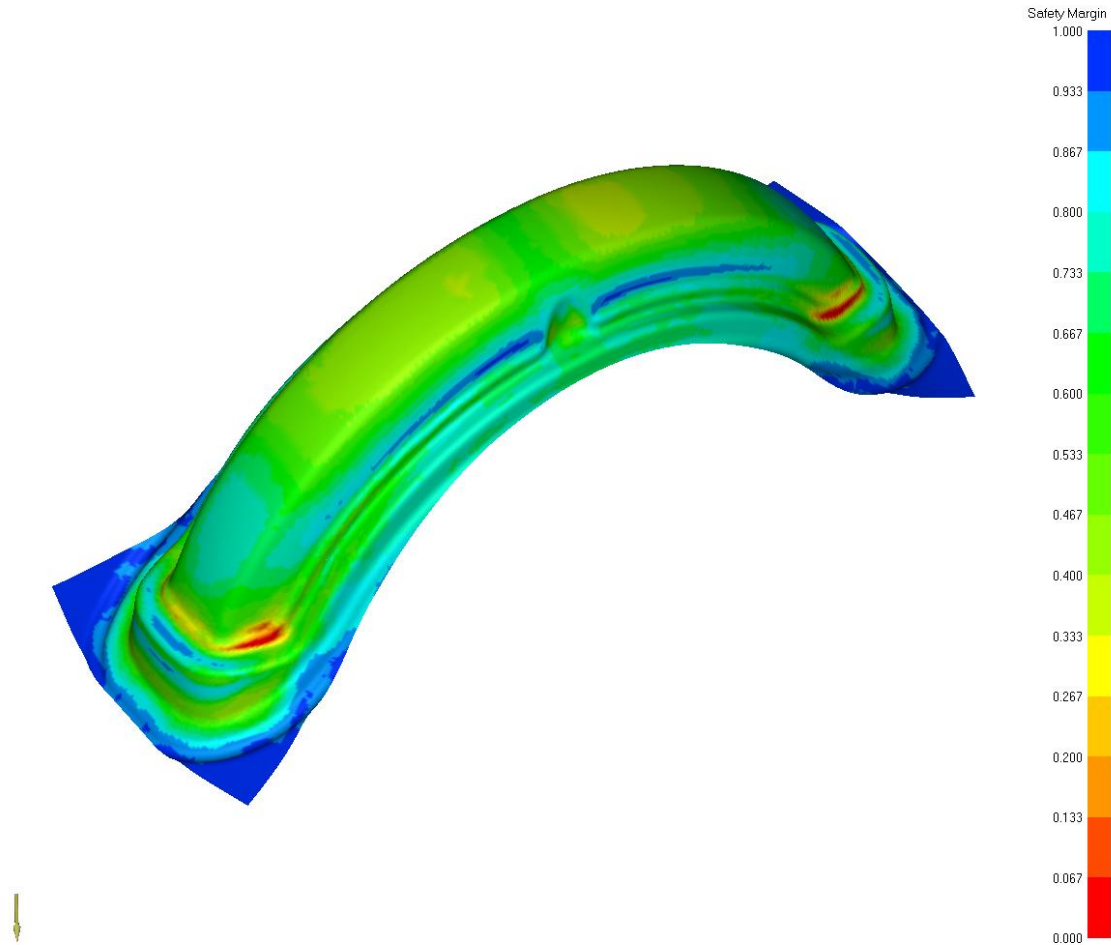
Result True Equivalent Stress Min: 44.524 Max: 621.179 Unit: MPa



# Forming Results

Incremental 1

Result Safety Margin Min: -0.16 Max: 1.00 Unit:



# Forming Results

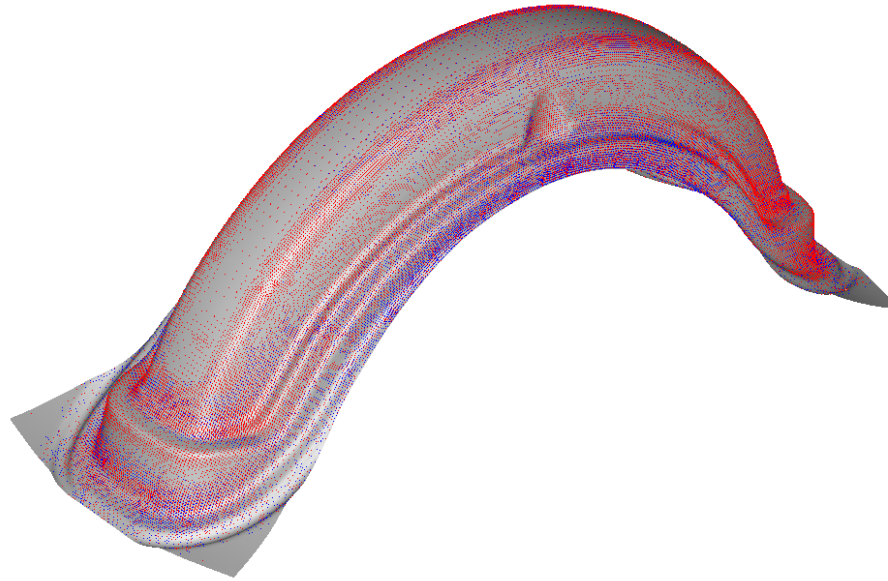
Incremental 1

## Principal Strain Direction

Principal Strain Direction

Tension 

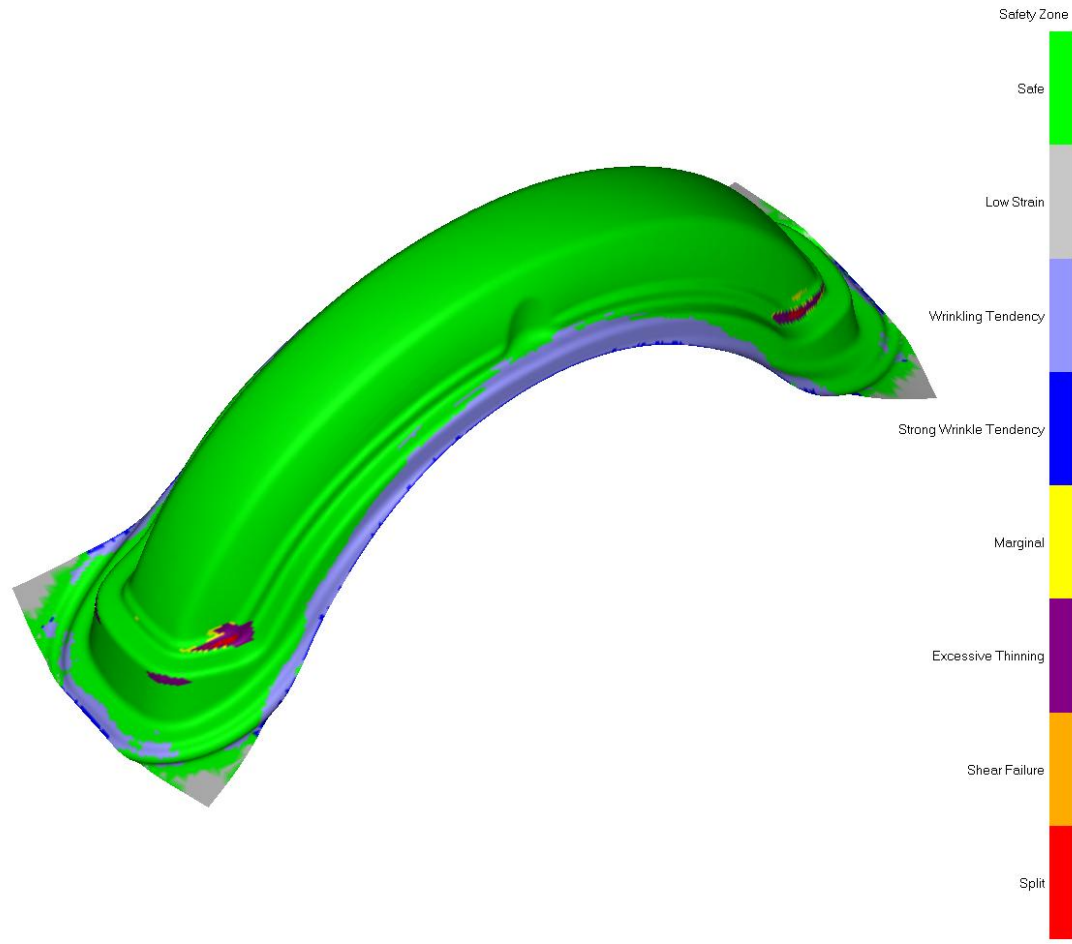
Compression 



# Forming Results

Incremental 1

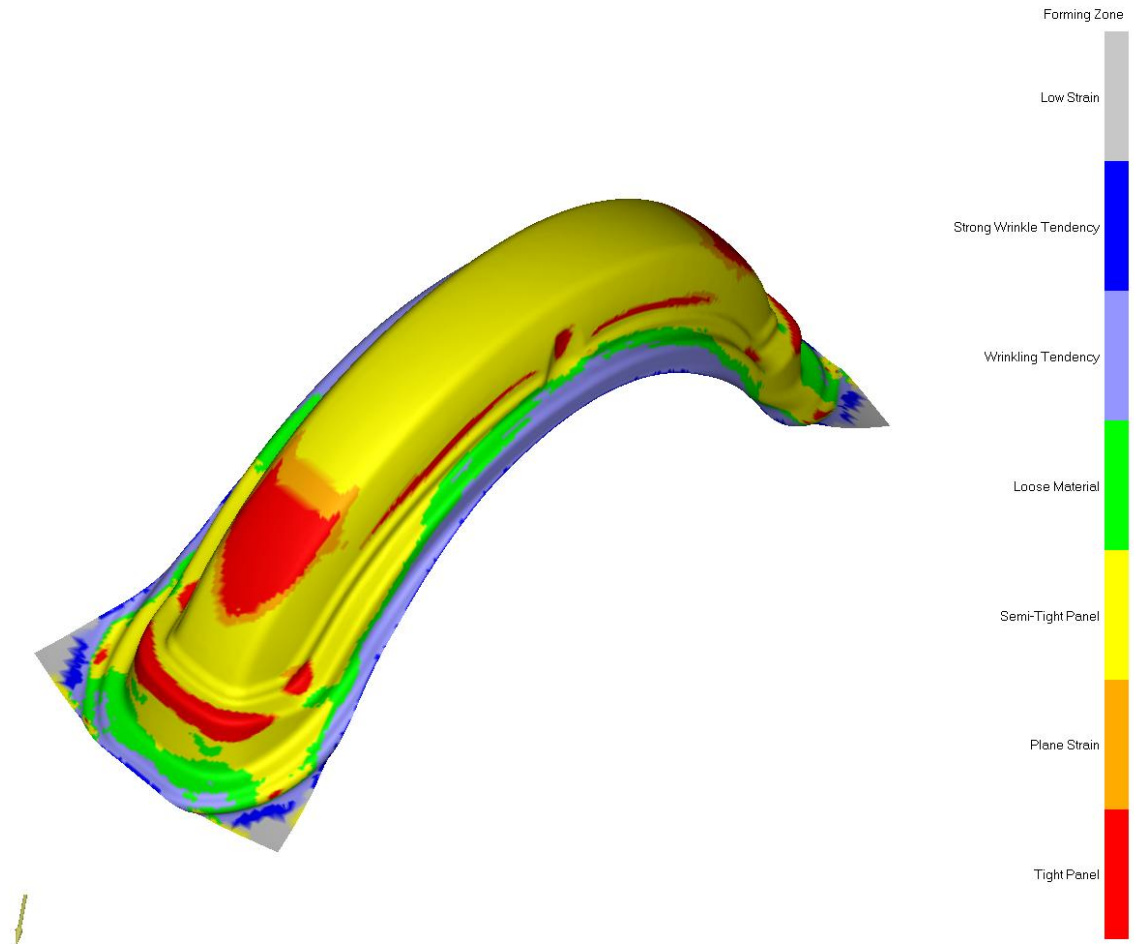
Safety Zone



# Forming Results

Incremental 1

Forming Zone



# Blank Data

Incremental 1



Area (mm <sup>2</sup> )	Perimeter	Weight	Height	Width
212362.093	N/A	N/A	N/A	N/A



# Results Summary

## Incremental 1

Operation Name	Safety Zones	Min. Thickness Strain (Eng. (%))	Max. Major Strain (Eng. (%))	Stroke (mm)	Peak Tonnage (N)
OP 10	Split	-26.601	38.765	130.151	716229.000

# Operations

Incremental 1

OP 10



# Comments

Enter comments here.