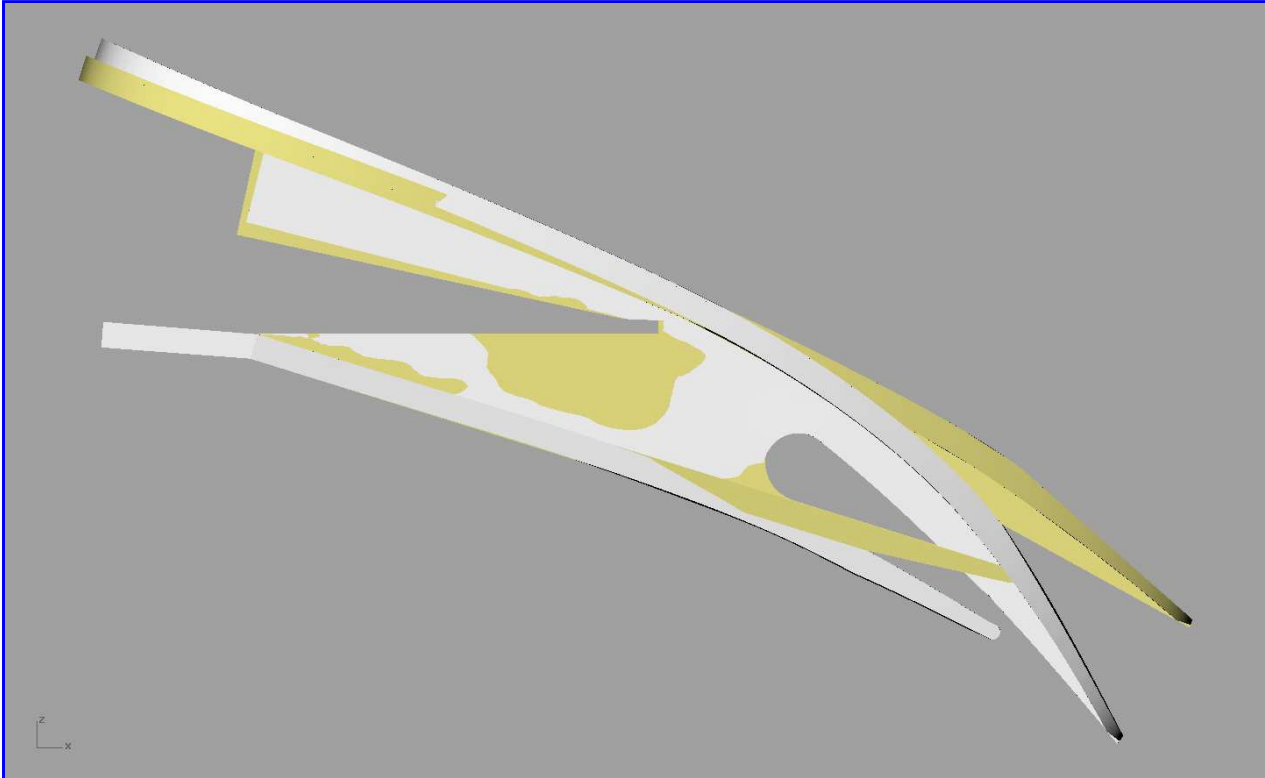


Scan&Solve™ Simulation Summary

Mon Jan 03, 2011 08:57:18

Geometry



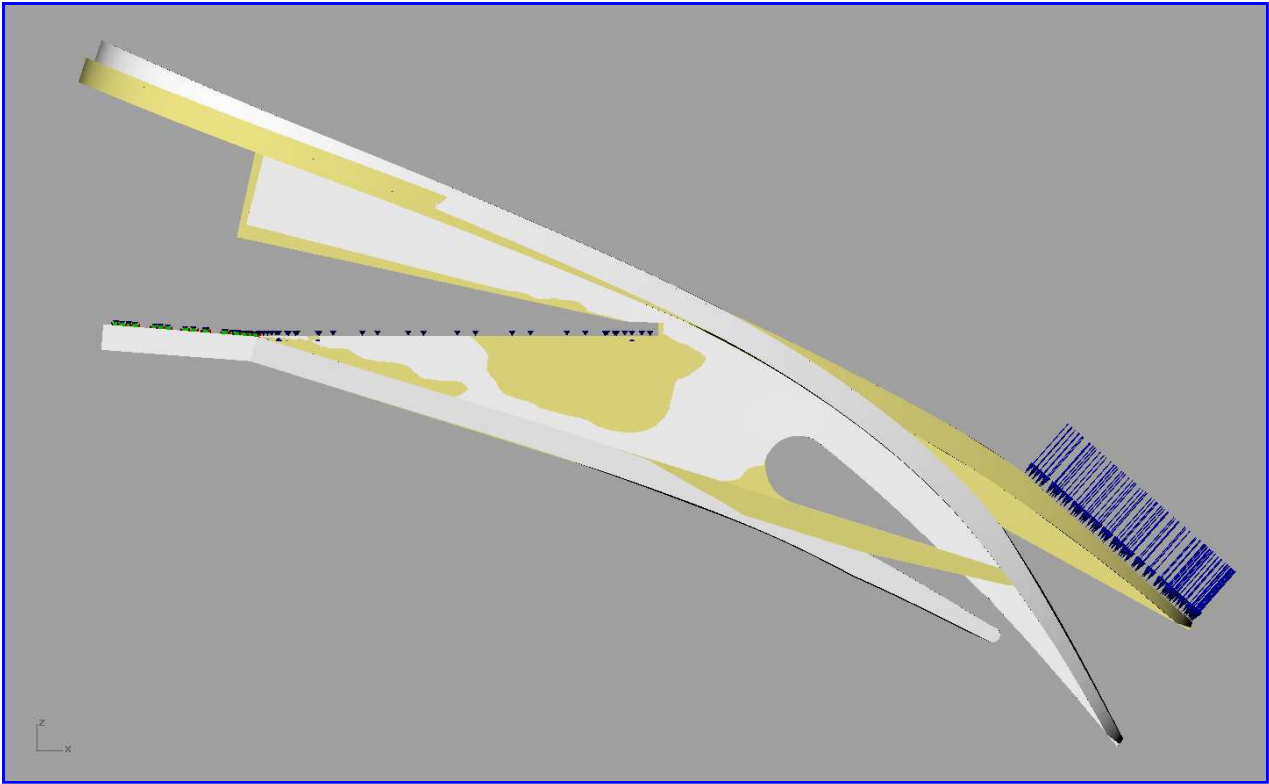
Geometry Summary

Quantity	Unit
Volume	49908.5 mm ³
Surface Area	31823.4 mm ²
Mass	6.88737e-05 Mg
Bounding Box	
min. corner	{441.874,-31.0029,-40.26}
max. corner	{594.167,31.0029,37.9712}

Material Properties

Property	Value
Description	PVC
Density	1.38e-09 Mg/mm ³
Elastic Modulus	2500 MPa
Poisson Ratio	0.41
Default Failure Criterion	von Mises
Tensile Yield Strength	88 MPa
Ultimate Tensile Strength	62 MPa
Ultimate Compressive Strength	89 MPa

Loads & Restraints



Load Summary

Description	Type	Definition
Pata	Pressure	1 MPa

Restraint Summary

Description	Definition
Pevne	X-Fixed,Y-Fixed,Z-Fixed
Z	X-Free,Y-Free,Z-Fixed

Simulation Summary

Settings

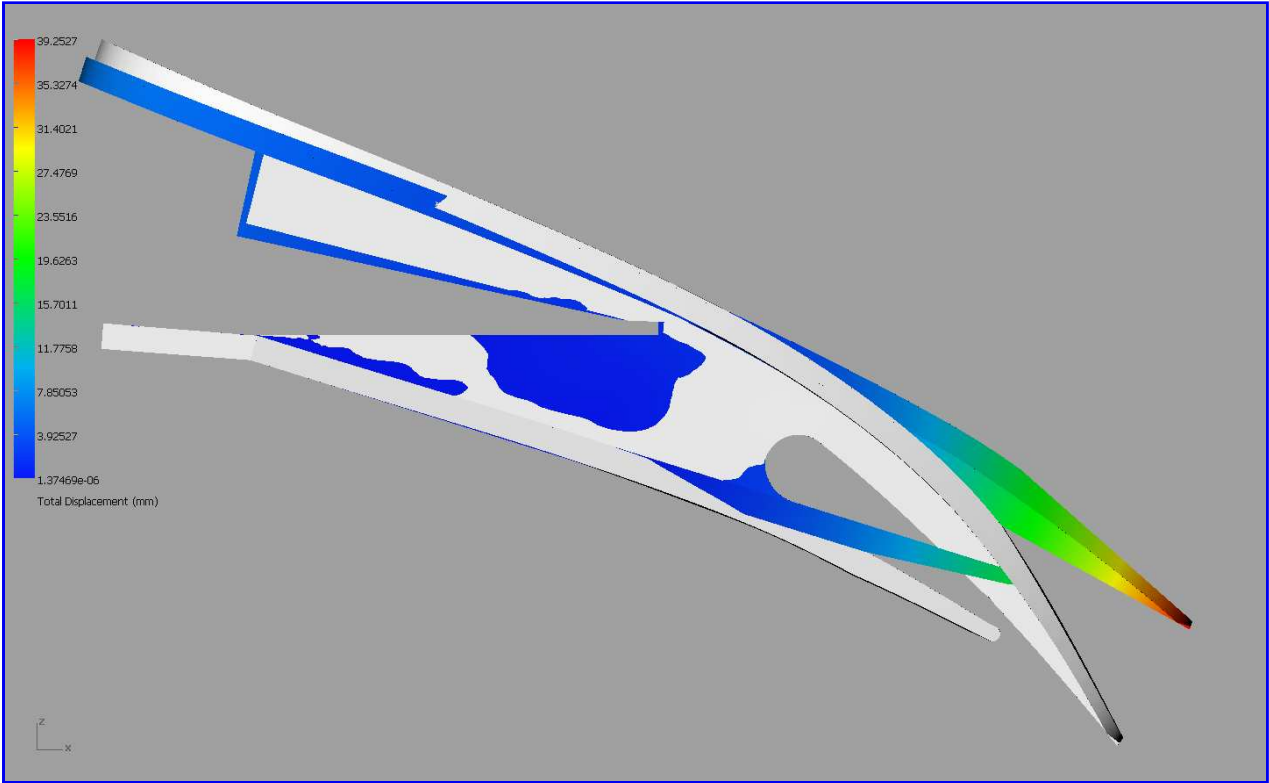
Basis Functions	
Degree	1
nx	65
ny	28
nz	34
Element size	{2.37989,2.37989,2.37989}
Resolution setting	9321
Computation Box	
min. corner	{440.686,-33.3214,-41.6002}
max. corner	{595.379,33.3156,39.3162}

Units

Quantity	Unit
Length	mm
Mass	Mg
Force	N
Time	s

Simulation Results

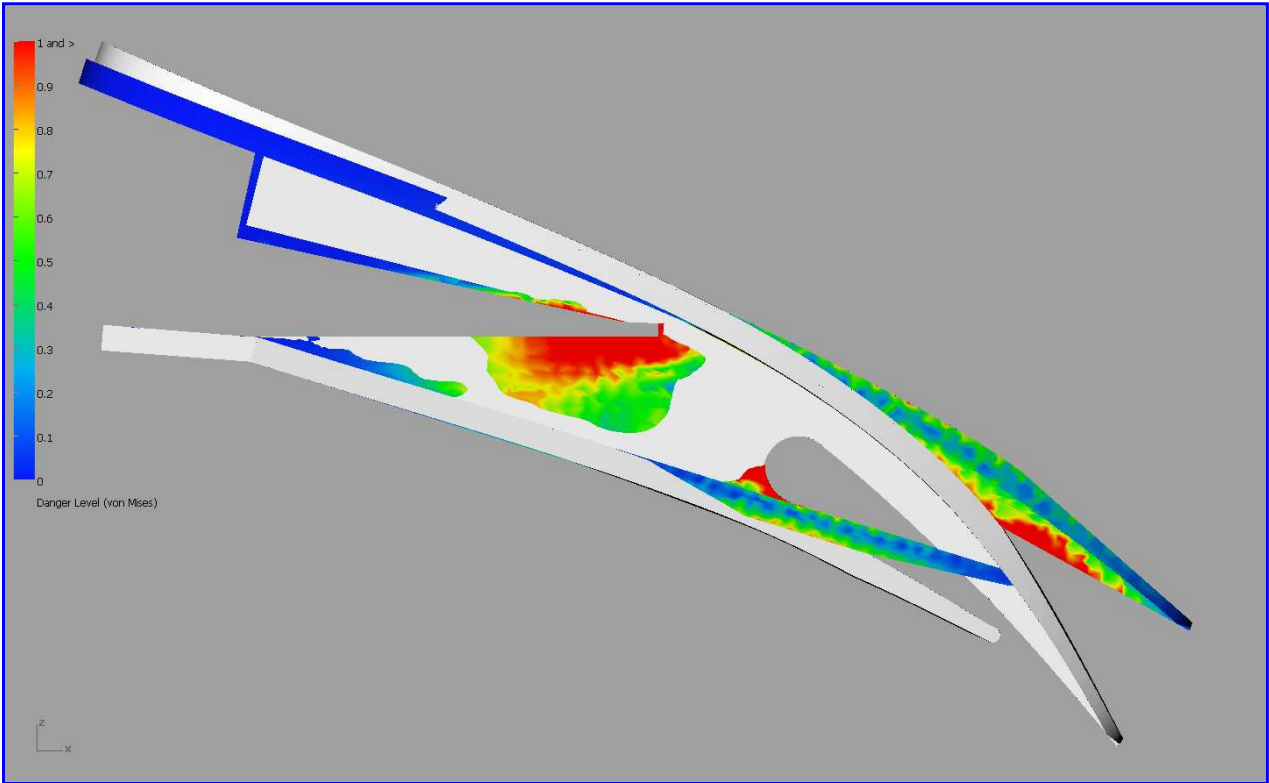
Displacements



Displacement Summary

	Amount	Location
Minimum	1.37469e-06 mm	{446.565,0.9375,1.46436}
Maximum	39.2527 mm	{593.81,-8,-40.26}

Danger Level



Danger Level Summary

	Amount	Location
Minimum	1.37067e-05	{445.047,0.9375,-1.04765}
Maximum	Criterion Limit Exceeded	{570.883,-1.75,-27.6278}

Results Extrema

	Minimum	Maximum
X-Displacement	-20.7956 mm	4.45322 mm
Total Displacement	1.37469e-06 mm	39.2527 mm
Z-Displacement	-33.5236 mm	5.08817 mm
Total Displacement	1.37469e-06 mm	39.2527 mm
Von Mises Stress	0.00120619 MPa	2006.57 MPa
Max. Principal Stress	-1458.45 MPa	1133.21 MPa
Mid. Principal Stress	-1687.67 MPa	423.367 MPa
Min. Principal Stress	-2889.29 MPa	223.289 MPa
Danger Level (von Mises)	1.37067e-05	Criterion Limit Exceeded
Danger Level (Max. Shear Stress)	3.13679e-05	Criterion Limit Exceeded
Danger Level (Rankine)	1.38353e-05	Criterion Limit Exceeded
Danger Level (Coulomb Mohr)	1.57943e-05	Criterion Limit Exceeded
Danger Level (Modified Mohr)	1.48848e-05	Criterion Limit Exceeded

CAUTION

Design decisions require experimental data and substantial experience; they should never be made based solely on a software simulation. Simulation is not intended to replace physical testing of prototypes, which is required to validate any design.