

Simulation of simulation_part

Date: Monday, February 27, 2017
Designer: Solidworks
Study name: Static 1
Analysis type: Static

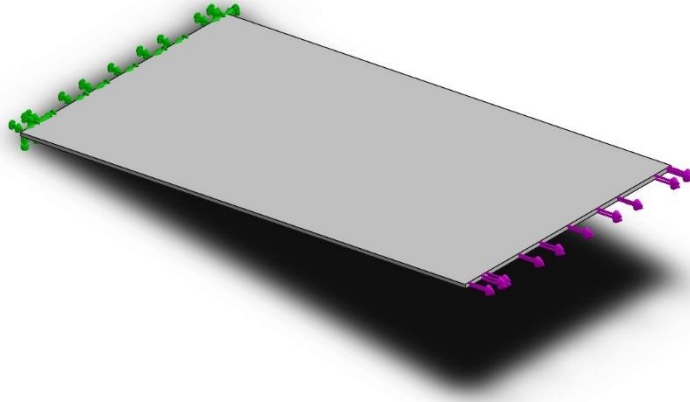
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Description

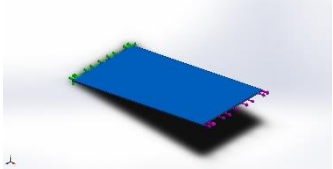
No Data

Model Information



Model name: simulation_part
Current Configuration: Default

Solid Bodies

Document Name and Reference	Treated As	Volumetric Properties	Document Path/Date Modified
Boss-Extrude1 	Solid Body	Mass:3.96817 kg Volume:0.00440908 m ³ Density:900 kg/m ³ Weight:38.8881 N	F:\Projects\SOLIDWORKS\I ad01\simulation_part.SLD PRT Feb 27 13:10:02 2017

Study Properties

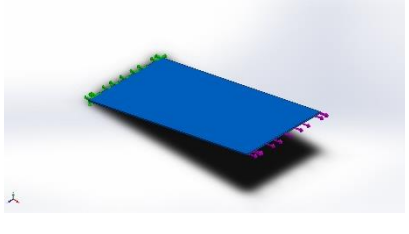
Study name	Static 1
Analysis type	Static
Mesh type	Solid Mesh
Thermal Effect:	On
Thermal option	Include temperature loads
Zero strain temperature	298 Kelvin
Include fluid pressure effects from SOLIDWORKS Flow Simulation	Off
Solver type	FFEPlus
Inplane Effect:	Off
Soft Spring:	Off
Inertial Relief:	Off
Incompatible bonding options	Automatic
Large displacement	Off
Compute free body forces	On
Friction	Off
Use Adaptive Method:	Off
Result folder	SOLIDWORKS document (F:\Projects\SOLIDWORKS\lad01)

Units

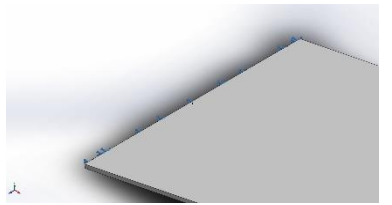
Unit system:	SI (MKS)
Length/Displacement	mm
Temperature	Kelvin
Angular velocity	Rad/sec
Pressure/Stress	N/m ²



Material Properties

Model Reference	Properties	Components
	Name: HG Model type: Linear Elastic Isotropic Default failure criterion: Max von Mises Stress Yield strength: 4.3e+006 N/m ² Elastic modulus: 4.9e+007 N/m ² Poisson's ratio: 0.49 Mass density: 900 kg/m ³	SolidBody 1(Boss-Extrude1)(simulation_part)
Curve Data:N/A		

Loads and Fixtures

Fixture name	Fixture Image	Fixture Details		
Fixed-1		Entities: 1 face(s) Type: Fixed Geometry		
Resultant Forces				
Components	X	Y	Z	Resultant
Reaction force(N)	-3723.18	-760.004	-0.00851822	3799.96
Reaction Moment(N.m)	0	0	0	0

Load name	Load Image	Load Details
Force-1		Entities: 1 face(s) Type: Apply normal force Value: -3800 N



Mesh information

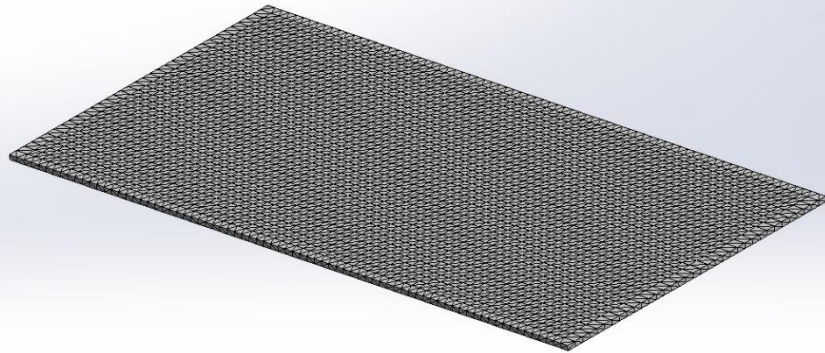
Mesh type	Solid Mesh
Mesher Used:	Standard mesh
Automatic Transition:	Off
Include Mesh Auto Loops:	Off
Jacobian points	4 Points
Element Size	14.3374 mm
Tolerance	0.71687 mm
Mesh Quality Plot	High

Mesh information - Details

Total Nodes	33979
Total Elements	17008
Maximum Aspect Ratio	8.1114
% of elements with Aspect Ratio < 3	94.1
% of elements with Aspect Ratio > 10	0
% of distorted elements(Jacobian)	0
Time to complete mesh(hh:mm:ss):	00:00:05
Computer name:	



Model name:simulation_part
Study name:Static 1-(Default)
Mesh type: Solid Mesh



Resultant Forces

Reaction forces

Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N	-3723.18	-760.004	-0.00851822	3799.96

Reaction Moments

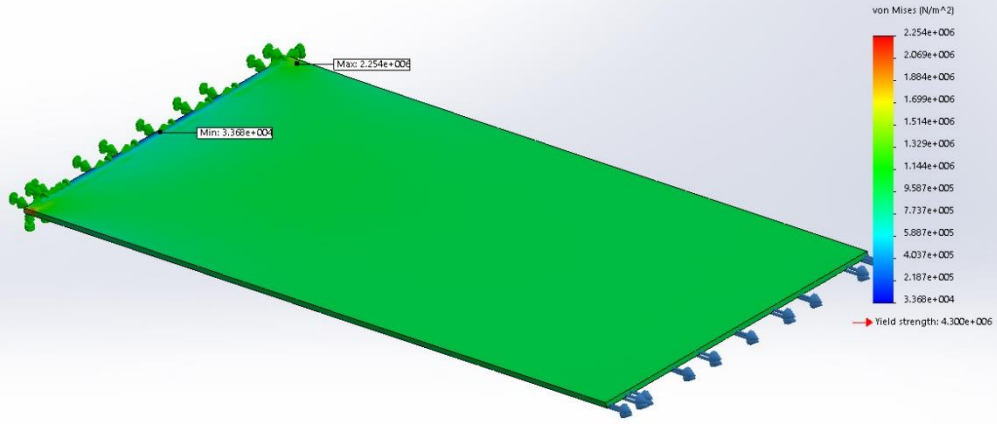
Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N.m	0	0	0	0



Study Results

Name	Type	Min	Max
Stress1	VON: von Mises Stress	3.368e+004N/m ² Node: 32369	2.254e+006N/m ² Node: 2929

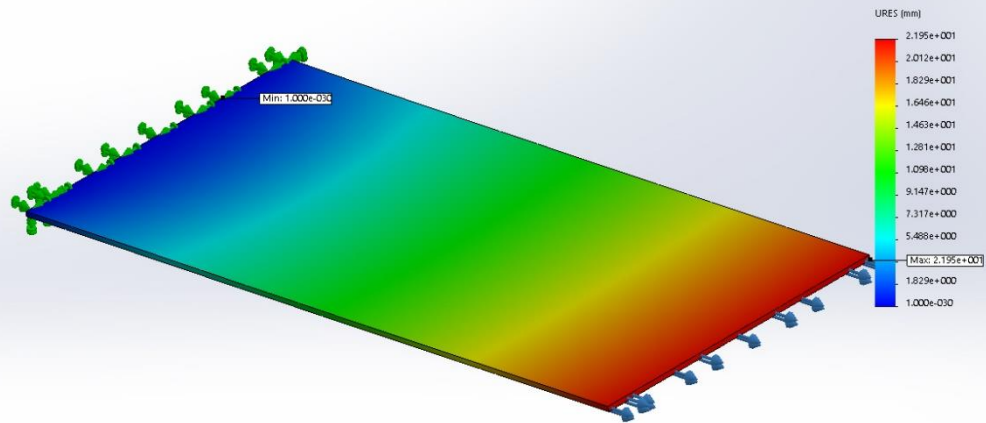
Model name:simulation_part
 Study name:Static 1(Default)
 Plot type: Static nodal stress Stress1
 Deformation scale: 1



simulation_part-Static 1-Stress-Stress1

Name	Type	Min	Max
Displacement1	URES: Resultant Displacement	0.000e+000mm Node: 79	2.195e+001mm Node: 2853

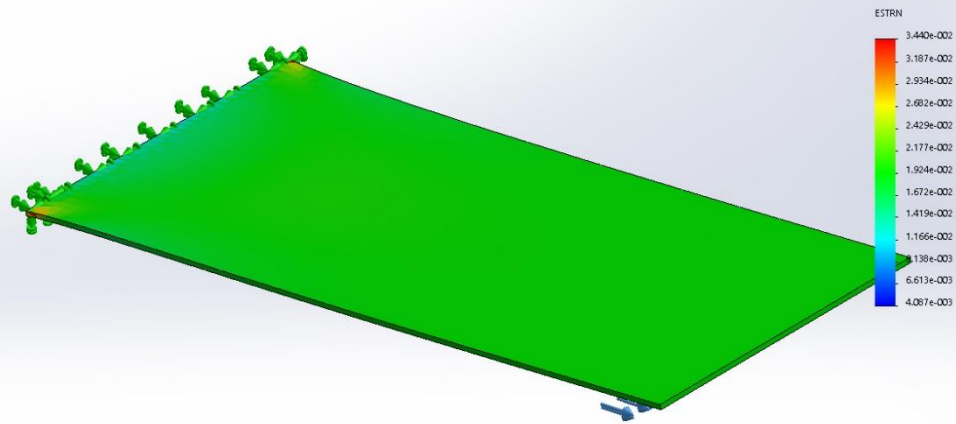
Model name:simulation_part
 Study name:Static 1(Default...)
 Plot type: Static displacement Displacement1
 Deformation scale: 1



simulation_part-Static 1-Displacement-Displacement1

Name	Type	Min	Max
Strain1	ESTRN: Equivalent Strain	4.087e-003 Element: 8716	3.440e-002 Element: 9584

Model name:simulation_part
 Study name:Static 1(Default...)
 Plot type: Static strain Strain1
 Deformation scale: 5.51338



simulation_part-Static 1-Strain-Strain1

