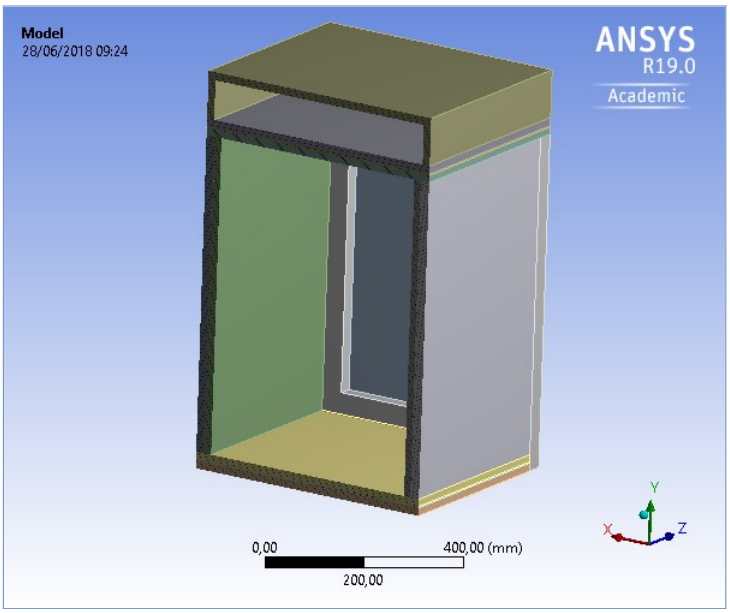
Project

First Saved	Wednesday, June 27, 2018
Last Saved	Thursday, June 28, 2018
Product Version	19.0 Release
Save Project Before Solution	No
Save Project After Solution	No



Contents

Units

TABLE 1

Unit System	Metric (mm, kg, N, s, mV, mA) Degrees rad/s Celsius
Angle	Degrees
Rotational Velocity	rad/s
Temperature	Celsius

Model (A4)

Geometry

TABLE 2
Model (A4) > Geometry

Object Name	*Geometry*
State	Fully Defined
Definition	
Source	C:\Users\Thiago\Desktop\Estufa_camadas\estufa_camadas_files\dp0\SYS\DM\SYS.scdoc
Type	SpaceClaim
Length Unit	Meters
Element Control	Program Controlled
Display Style	Body Color
Bounding Box	
Length X	535, mm
Length Y	835, mm
Length Z	570, mm
Properties	
Volume	2,3479e+008 mm³
Mass	33,764 kg
Scale Factor Value	1,
Statistics	
Bodies	19
Active Bodies	19
Nodes	27281
Elements	4421
Mesh Metric	None
Basic Geometry Options	
Solid Bodies	Yes
Surface Bodies	Yes
Line Bodies	Yes
Parameters	Independent
Parameter Key	
Attributes	Yes
Attribute Key	
Named Selections	Yes
Named Selection Key	
Material Properties	Yes
Advanced Geometry Options	
Use Associativity	Yes
Coordinate Systems	Yes
Coordinate System Key	
Reader Mode Saves Updated File	No
Use Instances	Yes
Smart CAD Update	Yes
Compare Parts On Update	No
Analysis Type	3-D
Mixed Import Resolution	None
Decompose Disjoint Geometry	Yes
Enclosure and Symmetry Processing	Yes

TABLE 3
Model (A4) > Geometry > Parts

Object Name	parte_tras\forro	parte_tras\pvc	parte_tras\isopor	parte_baixo\isopor	parte_baixo\pvc	parte_baixo\forro	parte_esquerda\isopor	parte_esquerda\pvc	parte_e
State	Meshed								
Graphics Properties									
Visible	Yes								
Transparency	1								
Definition									
Suppressed	No								
Stiffness Behavior	Flexible								
Coordinate System	Default Coordinate System								
Reference Temperature	By Environment								
Behavior	None								
Material									
Assignment	Air (Atmospheric)	PVC	Isopor		PVC	Air(Atmospheric)	Isopor	PVC	Air(A
Nonlinear Effects	Yes								
Thermal Strain Effects	Yes								
Bounding Box									
Length X	535, mm						17, mm	3,5 mm	
Length Y	665, mm			17, mm	3, mm	15, mm	665, mm		
Length Z	15, mm	3, mm	17, mm	535, mm			500, mm		
Properties									
Volume	5,3366e+006 mm³	1,0673e+006 mm³	6,0482e+006 mm³	4,8658e+006 mm³	8,5867e+005 mm³	4,2934e+006 mm³	5,6525e+006 mm³	1,1638e+006 mm³	4,987
Mass	6,5374e-003 kg	1,2808 kg	0,30241 kg	0,24329 kg	1,0304 kg	5,2594e-003 kg	0,28263 kg	1,3965 kg	6,10
Centroid X	267,5 mm						8,5 mm	18,75 mm	
Centroid Y	367,5 mm			8,5 mm	18,5 mm	27,5 mm	367,5 mm		
Centroid Z	-507,5 mm	-516,5 mm	-526,5 mm	-267,5 mm			-250, mm		
Moment of Inertia Ip1	241,04 kg·mm²	47201 kg·mm²	11152 kg·mm²	5808,9 kg·mm²	24578 kg·mm²	125,55 kg·mm²	16303 kg·mm²	80558 kg·mm²	352,
Moment of Inertia Ip2	156,05 kg·mm²	30551 kg·mm²	7220,4 kg·mm²	11606 kg·mm²	49155 kg·mm²	250,89 kg·mm²	5894,8 kg·mm²	29095 kg·mm²	127
Moment of Inertia Ip3	396,84 kg·mm²	77750 kg·mm²	18357 kg·mm²	5808,9 kg·mm²	24578 kg·mm²	125,55 kg·mm²	10422 kg·mm²	51465 kg·mm²	225,
Statistics									
Nodes	1206			1131			1206		
Elements	154			144			154		
Mesh Metric	None								
CAD Attributes									
PartTolerance:	0,00000001								
Color:192.192.192									

TABLE 4
Model (A4) > Geometry > Parts

Object Name	Component8\pvc	Component10 \forro	Component11 \pvc	Component12 \isopor	madeira\Solid	porta\Solid	vidro\Solid	ar\Solid
State	Meshed							Hidden
Graphics Properties								
Visible	Yes							No
Transparency	1							
Definition								
Suppressed	No							
Stiffness Behavior	Flexible							
Coordinate System	Default Coordinate System							
Reference Temperature	By Environment							
Behavior	None							
Material								
Assignment	PVC	Air(Atmospheric)	PVC	Isopor	Wood	Aluminum Alloy	Glass	Air (Atmospheric)
Nonlinear Effects	Yes							
Thermal Strain Effects	Yes							
Bounding Box								
Length X	3,5 mm	535, mm					375, mm	464, mm
Length Y	665, mm	15, mm	3, mm	17, mm	100, mm	700, mm	540, mm	700, mm
Length Z	500, mm	570, mm				35, mm	7, mm	500, mm
Properties								
Volume	1,1637e+006 mm³	4,5743e+006 mm³	9,1485e+005 mm³	5,1842e+006 mm³	8,2065e+006 mm³	6,02e+006 mm³	1,4175e+006 mm³	1,624e+008 mm³
Mass	1,3965 kg	5,6035e-003 kg	1,0978 kg	0,25921 kg	5,7446 kg	16,675 kg	3,5437 kg	0,19894 kg
Centroid X	516,25 mm	267,5 mm						
Centroid Y	367,5 mm	707,5 mm	716,5 mm	726,5 mm	808,09 mm	350, mm		385, mm
Centroid Z	-250, mm					17,5 mm	31,5 mm	-250, mm
Moment of Inertia Ip1	80557 kg·mm²	151,82 kg·mm²	29725 kg·mm²	7024,3 kg·mm²	2,0907e+005 kg·mm²	1,0072e+006 kg·mm²	86128 kg·mm²	12268 kg·mm²
Moment of Inertia Ip2	29095 kg·mm²	285,37 kg·mm²	55909 kg·mm²	13201 kg·mm²	3,8724e+005 kg·mm²	6,3765e+005 kg·mm²	41543 kg·mm²	7713,8 kg·mm²
Moment of Inertia Ip3	51465 kg·mm²	133,76 kg·mm²	26186 kg·mm²	6188,9 kg·mm²	1,8746e+005 kg·mm²	1,6414e+006 kg·mm²	1,2764e+005 kg·mm²	11693 kg·mm²
Statistics								
Nodes	1206	1220			1494	773	932	6175
Elements	154	156			679	79	117	1260
Mesh Metric	None							
CAD Attributes								
PartTolerance:	0,00000001							
Color:192.192.192								
Color:175.175.143								
Color:0.0.0								
Color:255.255.255								

Coordinate Systems

TABLE 5
Model (A4) > Coordinate Systems > Coordinate System

Object Name	*Global Coordinate System*
State	Fully Defined
Definition	
Type	Cartesian
Coordinate System ID	0,
Origin	
Origin X	0, mm
Origin Y	0, mm
Origin Z	0, mm
Directional Vectors	
X Axis Data	[1, 0, 0,]
Y Axis Data	[0, 1, 0,]
Z Axis Data	[0, 0, 1,]

Connections

TABLE 6
Model (A4) > Connections

Object Name	*Connections*
State	Fully Defined
Auto Detection	
Generate Automatic Connection On Refresh	Yes
Transparency	
Enabled	Yes

TABLE 7
Model (A4) > Connections > Contacts

Object Name	*Contacts*
State	Fully Defined
Definition	
Connection Type	Contact
Scope	
Scoping Method	Geometry Selection
Geometry	All Bodies
Auto Detection	
Tolerance Type	Slider
Tolerance Slider	0,
Tolerance Value	2,8596 mm
Use Range	No
Face/Face	Yes
Face Overlap Tolerance	Off
Cylindrical Faces	Include
Face/Edge	No
Edge/Edge	No
Priority	Include All
Group By	Bodies
Search Across	Bodies
Statistics	
Connections	51
Active Connections	51

TABLE 8
Model (A4) > Connections > Contacts > Contact Regions

Object Name	*Contact Region*	*Contact Region 2*	*Contact Region 3*	*Contact Region 4*	*Contact Region 5*	*Contact Region 6*	*Contact Region 7*	*Contact Region 8*	*Contact Region 9*	*Contact 1*
State	Fully Defined									
Scope										
Scoping Method	Geometry Selection									
Contact	1 Face									
Target	1 Face									
Contact Bodies	parte_tras\forro									
Target Bodies	parte_tras\pvc	parte_baixo\forro	parte_esquerda\isopor	parte_esquerda\pvc	parte_esquerda\forro	Component7 \isopor	Component9 \forro	Component8 \pvc	Component10 \forro	parte_tra
Protected	No									
Definition										
Type	Bonded									
Scope Mode	Automatic									
Behavior	Program Controlled									
Trim Contact	Program Controlled									
Trim Tolerance	2,8596 mm									
Suppressed	No									
Advanced										
Formulation	Program Controlled									
Small Sliding	Program Controlled									
Detection Method	Program Controlled									
Elastic Slip Tolerance	Program Controlled									
Thermal Conductance	Program Controlled									
Pinball Region	Program Controlled									
Geometric Modification										
Contact Geometry Correction	None									
Target Geometry Correction	None									

TABLE 9

Model (A4) > Connections > Contacts > Contact Regions

Object Name	Contact Region 12	Contact Region 13	Contact Region 14	Contact Region 15	Contact Region 16	Contact Region 17	Contact Region 18	Contact Region 19	Contact Region 20	Contact Reg
State	Fully Defined									
Scope										
Scoping Method	Geometry Selection									
Contact	1 Face									
Target	1 Face									
Contact Bodies	parte_tras\pvc	parte_tras\isopor		parte_baixo\isopor		parte_baixo\pvc		parte_baixo\forro		
Target Bodies	Component10 \forro	parte_baixo\forro	Component10 \forro	parte_baixo\pvc	porta\Solid	parte_baixo\forro	porta\Solid	parte_esquerda\isopor	parte_esquerda\pvc	parte_esquer
Protected	No									
Definition										
Type	Bonded									
Scope Mode	Automatic									
Behavior	Program Controlled									
Trim Contact	Program Controlled									
Trim Tolerance	2,8596 mm									
Suppressed	No									
Advanced										
Formulation	Program Controlled									
Small Sliding	Program Controlled									
Detection Method	Program Controlled									
Elastic Slip Tolerance	Program Controlled									
Thermal Conductance	Program Controlled									
Pinball Region	Program Controlled									
Geometric Modification										
Contact Geometry Correction	None									
Target Geometry Correction	None									

TABLE 10
Model (A4) > Connections > Contacts > Contact Regions

Object Name	Contact Region 23	Contact Region 24	Contact Region 25	Contact Region 26	Contact Region 27	Contact Region 28	Contact Region 29	Contact Region 30	Contact Region 31	Contact Region 32	Contact Region 33
State	Fully Defined										
Scope											
Scoping Method	Geometry Selection										
Contact	1 Face										
Target	1 Face										
Contact Bodies	parte_baixo\forro			parte_esquerda\isopor			parte_esquerda\pvc			parte_esquerda\forro	
Target Bodies	Component9 \forro	Component8 \pvc	porta\Solid	parte_esquerda\pvc	Component10 \forro	porta\Solid	parte_esquerda\forro	Component10 \forro	porta\Solid	Component10 \forro	porta\Solid
Protected	No										
Definition											
Type	Bonded										
Scope Mode	Automatic										
Behavior	Program Controlled										
Trim Contact	Program Controlled										
Trim Tolerance	2,8596 mm										
Suppressed	No										
Advanced											
Formulation	Program Controlled										
Small Sliding	Program Controlled										
Detection Method	Program Controlled										
Elastic Slip Tolerance	Program Controlled										
Thermal Conductance	Program Controlled										
Pinball Region	Program Controlled										
Geometric Modification											
Contact Geometry Correction	None										
Target Geometry Correction	None										

TABLE 11
Model (A4) > Connections > Contacts > Contact Regions

Object Name	Contact Region 34	Contact Region 35	Contact Region 36	Contact Region 37	Contact Region 38	Contact Region 39	Contact Region 40	Contact Region 41	Contact Region 42	Contact Region 43	Contact Region 44
State	Fully Defined										
Scope											
Scoping Method	Geometry Selection										
Contact	1 Face										
Target	1 Face										
Contact Bodies	Component7\isopor			Component9\forro			Component8\pvc		Component10\forro		Component11 \pvc
Target Bodies	Component8 \pvc	Component10 \forro	porta\Solid	Component8 \pvc	Component10 \forro	porta\Solid	Component10 \forro	porta\Solid	Component11 \pvc	porta\Solid	Component12 \isopor
Protected	No										
Definition											

Type	Bonded
Scope Mode	Automatic
Behavior	Program Controlled
Trim Contact	Program Controlled
Trim Tolerance	2,8596 mm
Suppressed	No
Advanced	
Formulation	Program Controlled
Small Sliding	Program Controlled
Detection Method	Program Controlled
Elastic Slip Tolerance	Program Controlled
Thermal Conductance	Program Controlled
Pinball Region	Program Controlled
Geometric Modification	
Contact Geometry Correction	None
Target Geometry Correction	None

TABLE 12
Model (A4) > Connections > Contacts > Contact Regions

Object Name	*Contact Region 45*	*Contact Region 46*	*Contact Region 47*	*Contact Region 48*	*Contact Region 49*	*Contact Region 50*	*Contact Region 51*
State	Fully Defined						
Scope							
Scoping Method	Geometry Selection						
Contact	1 Face	4 Faces	1 Face				
Target	1 Face	4 Faces	1 Face				
Contact Bodies	Component12\isopor	porta\Solid	parte_tras\forro	parte_baixo\forro	parte_esquerda\forro	Component9\forro	porta\Solid
Target Bodies	madeira\Solid	vidro\Solid	ar\Solid				
Protected	No						
Definition							
Type	Bonded						
Scope Mode	Automatic						
Behavior	Program Controlled						
Trim Contact	Program Controlled						
Trim Tolerance	2,8596 mm						
Suppressed	No						
Advanced							
Formulation	Program Controlled						
Small Sliding	Program Controlled						
Detection Method	Program Controlled						
Elastic Slip Tolerance	Program Controlled						
Thermal Conductance	Program Controlled						
Pinball Region	Program Controlled						
Geometric Modification							
Contact Geometry Correction	None						
Target Geometry Correction	None						

Mesh

TABLE 13
Model (A4) > Mesh

Object Name	*Mesh*
State	Solved
Display	
Display Style	Body Color
Defaults	
Physics Preference	Mechanical
Relevance	0
Element Order	Program Controlled
Sizing	
Size Function	Adaptive
Relevance Center	Coarse
Element Size	Default
Mesh Defeaturing	Yes
Defeature Size	Default
Transition	Fast
Initial Size Seed	Assembly
Span Angle Center	Coarse
Bounding Box Diagonal	1143,80 mm
Average Surface Area	1,1221e+005 mm²
Minimum Edge Length	3,0 mm
Quality	
Check Mesh Quality	Yes, Errors
Error Limits	Standard Mechanical
Target Quality	Default (0.050000)
Smoothing	Medium
Mesh Metric	None
Inflation	
Use Automatic Inflation	None
Inflation Option	Smooth Transition
Transition Ratio	0,272
Maximum Layers	5
Growth Rate	1,2
Inflation Algorithm	Pre
View Advanced Options	No
Advanced	
Number of CPUs for Parallel Part Meshing	Program Controlled
Straight Sided Elements	No
Number of Retries	Default (4)

Rigid Body Behavior	Dimensionally Reduced
Triangle Surface Mesher	Program Controlled
Topology Checking	Yes
Pinch Tolerance	Please Define
Generate Pinch on Refresh	No
Statistics	
Nodes	27281
Elements	4421

Transient Thermal (A5)

TABLE 14
Model (A4) > Analysis

Object Name	*Transient Thermal (A5)*
State	Solved
Definition	
Physics Type	Thermal
Analysis Type	Transient
Solver Target	Mechanical APDL
Options	
Generate Input Only	No

TABLE 15
Model (A4) > Transient Thermal (A5) > Initial Condition

Object Name	*Initial Temperature*
State	Fully Defined
Definition	
Initial Temperature	Uniform Temperature
Initial Temperature Value	22, °C

TABLE 16
Model (A4) > Transient Thermal (A5) > Analysis Settings

Object Name	*Analysis Settings*
State	Fully Defined
Step Controls	
Number Of Steps	10,
Current Step Number	10,
Step End Time	7200, s
Auto Time Stepping	Program Controlled
Initial Time Step	52, s
Minimum Time Step	5,2 s
Maximum Time Step	520, s
Time Integration	On
Solver Controls	
Solver Type	Program Controlled
Radiosity Controls	
Radiosity Solver	Program Controlled
Flux Convergence	1,e-004
Maximum Iteration	1000,
Solver Tolerance	1,e-007 W/mm²
Over Relaxation	0,1
Hemicube Resolution	10,
Nonlinear Controls	
Heat Convergence	Program Controlled
Temperature Convergence	Program Controlled
Line Search	Program Controlled
Nonlinear Formulation	Program Controlled
Output Controls	
Calculate Thermal Flux	Yes
Nodal Forces	No
Contact Miscellaneous	No
General Miscellaneous	No
Store Results At	All Time Points
Analysis Data Management	
Solver Files Directory	C:\Users\Thiago\Desktop\Estufa_camadas\estufa_camadas_files\dp0\SYS\MECH\
Future Analysis	None
Scratch Solver Files Directory	
Save MAPDL db	No
Contact Summary	Program Controlled
Delete Unneeded Files	Yes
Nonlinear Solution	Yes
Solver Units	Active System
Solver Unit System	nmm

TABLE 17
Model (A4) > Transient Thermal (A5) > Analysis Settings
Step-Specific "Step Controls"

Step	Step End Time	Initial Time Step	Minimum Time Step	Maximum Time Step
1	1, s	1,e-002 s	1,e-003 s	0,1 s
2	5, s	4,e-002 s	4,e-003 s	0,4 s
3	10, s	5,e-002 s	5,e-003 s	0,5 s
4	50, s	0,4 s	4,e-002 s	4, s
5	100, s	0,5 s	5,e-002 s	5, s
6	200, s	1, s	0,1 s	10, s
7	500, s	3, s	0,3 s	30, s
8	1000, s	5, s	0,5 s	50, s
9	2000, s	10, s	1, s	100, s
10	7200, s	52, s	5,2 s	520, s

TABLE 18
Model (A4) > Transient Thermal (A5) > Loads

Object Name	*Convection*	*Convection 2*
State	Fully Defined	Suppressed
Scope		

Scoping Method	Geometry Selection	
Geometry	41 Faces	6 Faces
Definition		
Type	Convection	
Film Coefficient	5,e-006 W/mm²·°C (step applied)	
Coefficient Type	Average Film Temperature	
Ambient Temperature	30, °C (step applied)	20, °C (step applied)
Convection Matrix	Program Controlled	
Suppressed	No	Yes

FIGURE 1
Model (A4) > Transient Thermal (A5) > Convection

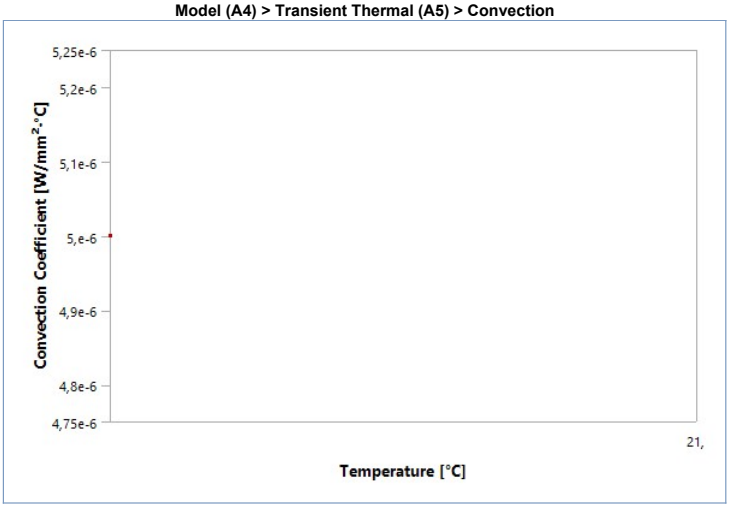


TABLE 19
Model (A4) > Transient Thermal (A5) > Convection

Temperature [°C]	Convection Coefficient [W/mm²·°C]
21,	5,e-006

FIGURE 2
Model (A4) > Transient Thermal (A5) > Convection 2

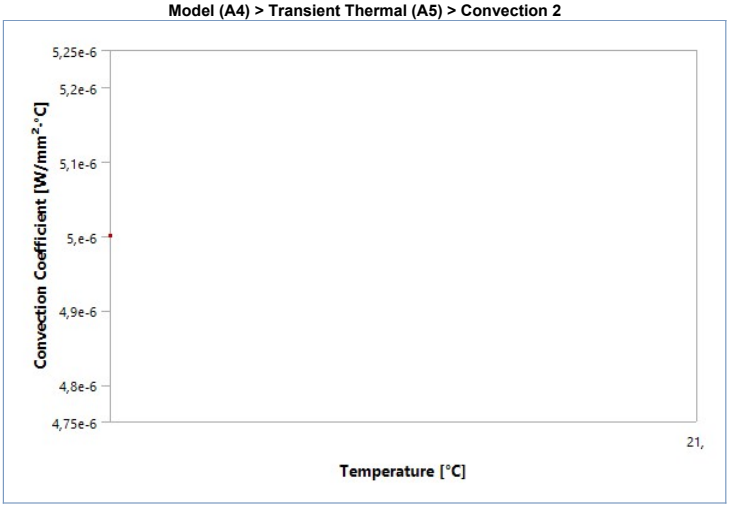


TABLE 20
Model (A4) > Transient Thermal (A5) > Convection 2

Temperature [°C]	Convection Coefficient [W/mm²·°C]
21,	5,e-006

Solution (A6)

TABLE 21
Model (A4) > Transient Thermal (A5) > Solution

Object Name	*Solution (A6)*
State	Solved
Adaptive Mesh Refinement	
Max Refinement Loops	1,
Refinement Depth	2,
Information	
Status	Done
MAPDL Elapsed Time	3 m 17 s
MAPDL Memory Used	421, MB
MAPDL Result File Size	417,31 MB
Post Processing	
Beam Section Results	No

TABLE 22
Model (A4) > Transient Thermal (A5) > Solution (A6) > Solution Information

Object Name	*Solution Information*
State	Solved
Solution Information	

Solution Output	Solver Output
Update Interval	2,5 s
Display Points	All
FE Connection Visibility	
Activate Visibility	Yes
Display	All FE Connectors
Draw Connections Attached To	All Nodes
Line Color	Connection Type
Visible on Results	No
Line Thickness	Single
Display Type	Lines

TABLE 23
Model (A4) > Transient Thermal (A5) > Solution (A6) > Solution Information > Result Charts

Object Name	*Temperature - Global Maximum*	*Temperature - Global Minimum*
State	Solved	
Scope		
Scoping Method	Global Maximum	Global Minimum
Definition		
Type	Temperature	
Suppressed	No	
Results		
Minimum	22,177 °C	20,209 °C
Maximum	30,111 °C	21,926 °C

FIGURE 3
Model (A4) > Transient Thermal (A5) > Solution (A6) > Solution Information > Temperature - Global Maximum

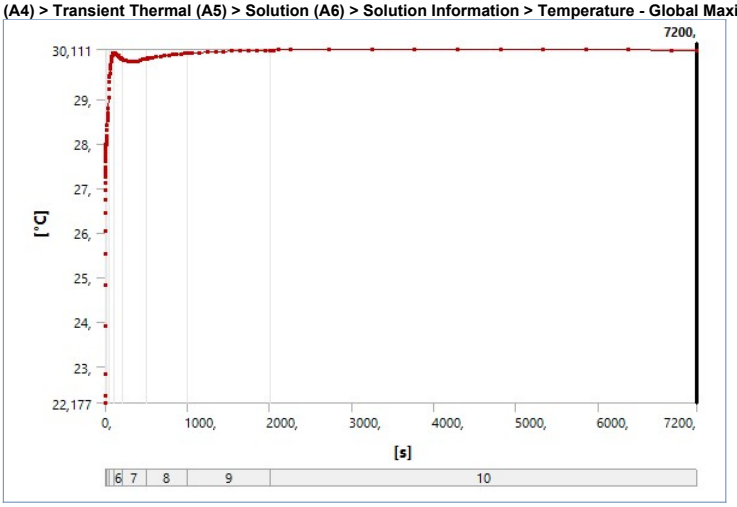


FIGURE 4
Model (A4) > Transient Thermal (A5) > Solution (A6) > Solution Information > Temperature - Global Minimum

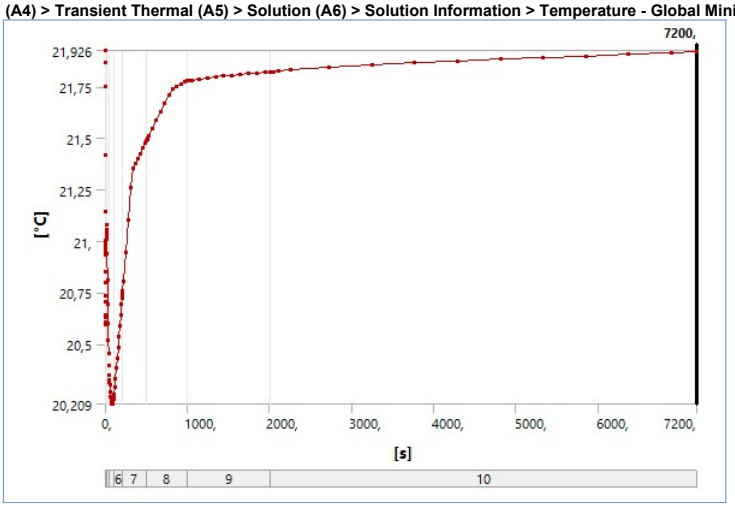


TABLE 24
Model (A4) > Transient Thermal (A5) > Solution (A6) > Results

Object Name	*Temperature*	*Total Heat Flux*	*Directional Heat Flux*
State	Solved		
Scope			
Scoping Method	Geometry Selection		
Geometry	All Bodies		
Definition			
Type	Temperature	Total Heat Flux	Directional Heat Flux
By	Time		
Display Time	Last		
Calculate Time History	Yes		
Identifier			
Suppressed	No		
Orientation			X Axis
Coordinate System			Global Coordinate System
Results			

Minimum	21,919 °C	5,9057e-009 W/mm²	-9,1686e-005 W/mm²
Maximum	30,094 °C	1,0219e-004 W/mm²	9,1745e-005 W/mm²
Average	28,145 °C	3,732e-006 W/mm²	3,623e-008 W/mm²
Minimum Occurs On	Component11\pvc	ar\Solid	vidro\Solid
Maximum Occurs On	Component10\forro	porta\Solid	vidro\Solid
Minimum Value Over Time			
Minimum	20,209 °C	1,4257e-013 W/mm²	-1,3387e-004 W/mm²
Maximum	21,926 °C	1,5242e-008 W/mm²	-1,7653e-005 W/mm²
Maximum Value Over Time			
Minimum	22,177 °C	1,9472e-005 W/mm²	1,8369e-005 W/mm²
Maximum	30,111 °C	1,3957e-004 W/mm²	1,3095e-004 W/mm²
Information			
Time	7200, s		
Load Step	10		
Substep	13		
Iteration Number	130		
Integration Point Results			
Display Option		Averaged	
Average Across Bodies		No	

FIGURE 5
Model (A4) > Transient Thermal (A5) > Solution (A6) > Temperature

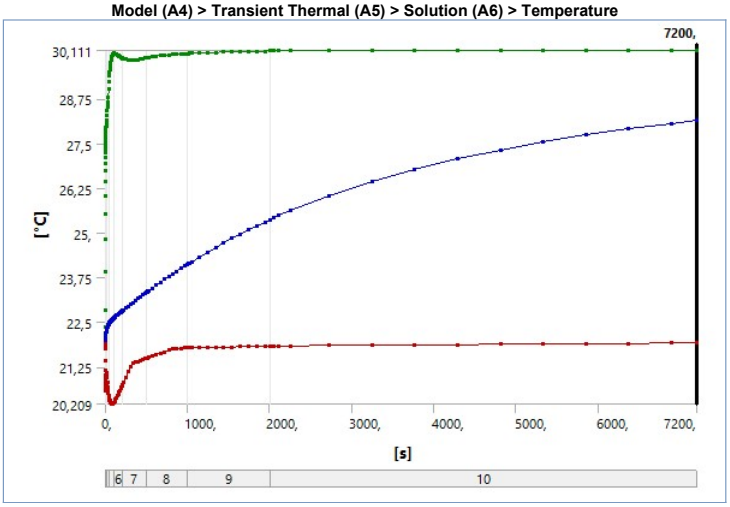


TABLE 25
Model (A4) > Transient Thermal (A5) > Solution (A6) > Temperature

Time [s]	Minimum [°C]	Maximum [°C]	Average [°C]
1,e-002	21,926	22,177	22,001
2,e-002	21,867	22,349	22,003
5,e-002	21,754	22,821	22,006
0,14	21,418	23,914	22,016
0,24	21,141	24,828	22,025
0,34	20,941	25,516	22,034
0,44	20,8	26,036	22,041
0,54	20,705	26,429	22,048
0,64	20,644	26,727	22,054
0,74	20,609	26,953	22,06
0,84	20,593	27,125	22,065
0,94	20,592	27,257	22,07
1,	20,596	27,324	22,072
1,04	20,6	27,363	22,074
1,08	20,605	27,399	22,076
1,2	20,63	27,477	22,081
1,56	20,733	27,596	22,094
1,96	20,853	27,665	22,106
2,36	20,934	27,707	22,118
2,76	20,932	27,736	22,128
3,16	20,935	27,761	22,137
3,56	20,939	27,784	22,146
3,96	20,946	27,805	22,154
4,36	20,953	27,826	22,162
4,76	20,96	27,847	22,17
5,	20,964	27,859	22,174
5,05	20,965	27,861	22,175
5,1	20,966	27,864	22,176
5,25	20,969	27,872	22,179
5,7	20,977	27,894	22,187
6,2	20,985	27,919	22,195
6,7	20,994	27,943	22,203
7,2	21,001	27,967	22,211
7,7	21,009	27,991	22,218
8,2	21,016	28,014	22,225
8,7	21,022	28,036	22,232
9,2	21,029	28,058	22,239
9,7	21,035	28,08	22,245
10,	21,038	28,093	22,249
10,4	21,043	28,11	22,254
10,8	21,047	28,126	22,259
12,	21,058	28,174	22,273
15,6	21,081	28,296	22,307
19,6	20,94	28,412	22,34
23,6	20,809	28,512	22,367

27,6	20,696	28,599	22,391
31,6	20,601	28,675	22,412
35,6	20,52	28,781	22,431
39,6	20,452	29,024	22,448
43,6	20,395	29,225	22,464
47,6	20,349	29,389	22,478
50,	20,324	29,477	22,486
50,5	20,319	29,494	22,488
51,	20,314	29,512	22,49
52,5	20,3	29,56	22,494
57,	20,268	29,674	22,508
62,	20,242	29,773	22,523
67,	20,224	29,849	22,536
72,	20,214	29,906	22,549
77,	20,209	29,949	22,562
82,		29,98	22,574
87,	20,213	30,002	22,586
92,	20,221	30,017	22,597
97,	20,233	30,025	22,609
100,	20,24	30,028	22,615
101,	20,243	30,029	22,617
102,	20,246	30,03	22,62
105,	20,255	30,031	22,626
114,	20,29	30,025	22,645
124,	20,333	30,013	22,666
134,	20,381	29,997	22,687
144,	20,432	29,98	22,707
154,	20,486	29,963	22,726
164,	20,536	29,947	22,746
174,	20,587	29,931	22,765
184,	20,64	29,917	22,784
194,	20,692	29,904	22,803
200,	20,724	29,896	22,815
203,	20,74	29,893	22,82
206,	20,756	29,889	22,826
215,	20,804	29,88	22,843
242,	20,948	29,86	22,892
272,	21,105	29,845	22,947
302,	21,259	29,836	23,001
332,	21,353	29,83	23,054
362,	21,377	29,84	23,106
392,	21,402	29,852	23,158
422,	21,427	29,868	23,21
452,	21,451	29,883	23,261
482,	21,476	29,897	23,312
500,	21,49	29,904	23,342
505,	21,494	29,907	23,35
510,	21,499	29,909	23,359
525,	21,511	29,915	23,384
570,	21,547	29,93	23,458
620,	21,588	29,946	23,539
670,	21,628	29,96	23,62
720,	21,668	29,972	23,699
770,	21,708	29,984	23,777
820,	21,741	29,994	23,854
870,	21,753	30,003	23,93
920,	21,764	30,011	24,004
970,	21,775	30,019	24,078
1000,	21,779	30,024	24,122
1010,		30,025	24,137
1020,	21,78	30,026	24,151
1050,	21,782	30,031	24,194
1140,	21,787	30,041	24,321
1240,	21,792	30,051	24,457
1340,	21,797	30,06	24,59
1440,	21,801	30,067	24,718
1540,	21,805	30,074	24,843
1640,	21,809	30,079	24,964
1740,	21,813	30,084	25,081
1840,	21,817	30,088	25,195
1940,	21,82	30,092	25,305
2000,	21,822	30,094	25,37
2052,	21,824	30,096	25,425
2104,	21,826	30,097	25,48
2260,	21,831	30,101	25,636
2728,	21,843	30,107	26,044
3248,	21,855	30,11	26,435
3768,	21,866	30,111	26,773
4288,	21,875	30,109	27,066
4808,	21,884	30,107	27,321
5328,	21,892	30,104	27,544
5848,	21,9	30,1	27,739
6368,	21,908	30,098	27,91
6888,	21,915	30,096	28,061
7200,	21,919	30,094	28,145

FIGURE 6
Model (A4) > Transient Thermal (A5) > Solution (A6) > Total Heat Flux

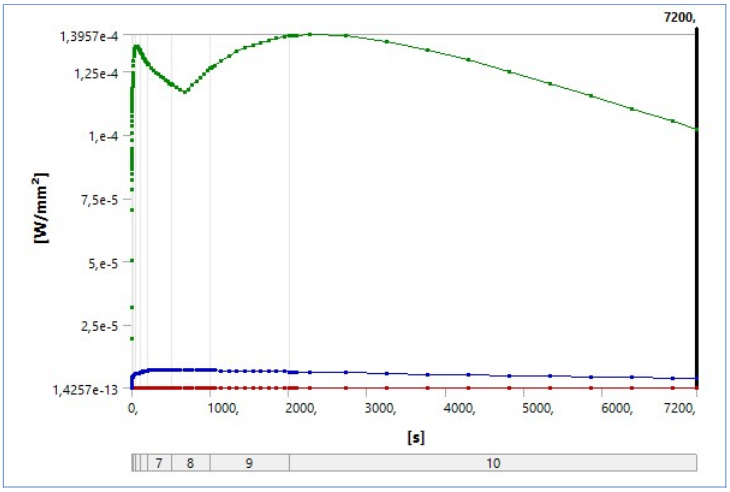


TABLE 26
Model (A4) > Transient Thermal (A5) > Solution (A6) > Total Heat Flux

Time [s]	Minimum [W/mm²]	Maximum [W/mm²]	Average [W/mm²]
1,e-002	2,4636e-011	1,9472e-005	8,7014e-008
2,e-002	2,6672e-011	3,1955e-005	1,3989e-007
5,e-002	3,555e-011	5,0501e-005	2,6233e-007
0,14	4,8685e-011	7,0328e-005	5,612e-007
0,24	1,9333e-011	7,8473e-005	8,4855e-007
0,34	4,3081e-011	8,2326e-005	1,0979e-006
0,44	3,2578e-011	8,4705e-005	1,3155e-006
0,54	5,0698e-011	8,6501e-005	1,5071e-006
0,64	4,5653e-011	8,8021e-005	1,6771e-006
0,74	3,3358e-011	8,9382e-005	1,8291e-006
0,84	1,5254e-011	9,0636e-005	1,966e-006
0,94	1,1838e-011	9,1809e-005	2,0901e-006
1,	2,3272e-011	9,2489e-005	2,1604e-006
1,04	2,091e-011	9,2933e-005	2,2055e-006
1,08	2,0322e-011	9,3367e-005	2,249e-006
1,2	1,2793e-011	9,4588e-005	2,3669e-006
1,56	2,7173e-012	9,7735e-005	2,6439e-006
1,96	3,6677e-012	1,0074e-004	2,8871e-006
2,36	2,4942e-012	1,0332e-004	3,0837e-006
2,76	5,6833e-012	1,0554e-004	3,2456e-006
3,16	7,3197e-012	1,0746e-004	3,3816e-006
3,56	8,5153e-013	1,0914e-004	3,4974e-006
3,96	2,9243e-012	1,106e-004	3,5975e-006
4,36	1,4257e-013	1,119e-004	3,6853e-006
4,76	9,5297e-013	1,1306e-004	3,763e-006
5,	2,7927e-012	1,137e-004	3,8066e-006
5,05	2,8117e-012	1,1384e-004	3,8156e-006
5,1	2,1622e-012	1,1397e-004	3,8244e-006
5,25	1,0145e-012	1,1435e-004	3,8497e-006
5,7	2,2533e-012	1,1537e-004	3,9174e-006
6,2	8,6978e-013	1,1639e-004	3,9848e-006
6,7	1,3576e-012	1,1733e-004	4,0456e-006
7,2	2,2497e-012	1,1819e-004	4,1011e-006
7,7	6,0898e-013	1,1899e-004	4,1519e-006
8,2	2,3862e-012	1,1973e-004	4,1987e-006
8,7	3,6239e-012	1,2044e-004	4,2425e-006
9,2	3,4504e-012	1,211e-004	4,2835e-006
9,7	3,1285e-012	1,2173e-004	4,3221e-006
10,	2,8934e-012	1,2209e-004	4,3446e-006
10,4	2,5252e-012	1,2256e-004	4,3731e-006
10,8	2,1202e-012	1,2301e-004	4,4002e-006
12,	8,348e-013	1,2422e-004	4,4718e-006
15,6	1,628e-012	1,2699e-004	4,6431e-006
19,6	2,9254e-012	1,2929e-004	4,8363e-006
23,6	1,0457e-012	1,31e-004	5,0386e-006
27,6	9,505e-013	1,3227e-004	5,2117e-006
31,6	1,0654e-012	1,332e-004	5,3452e-006
35,6	9,2526e-013	1,3387e-004	5,4451e-006
39,6	8,6162e-013	1,3435e-004	5,5184e-006
43,6	8,2566e-013	1,3466e-004	5,5709e-006
47,6	8,2695e-013	1,3486e-004	5,6073e-006
50,	8,5198e-013	1,3494e-004	5,6245e-006
50,5	8,5943e-013	1,3496e-004	5,6279e-006
51,	8,6735e-013	1,3497e-004	5,6311e-006
52,5	9,0196e-013	1,35e-004	5,6392e-006
57,	1,1688e-012		5,6529e-006
62,	1,8722e-012	1,3492e-004	5,6609e-006
67,	2,1679e-012	1,3479e-004	5,6697e-006
72,	2,4785e-012	1,346e-004	5,6881e-006
77,	3,1795e-012	1,3439e-004	5,7161e-006
82,	3,0252e-012	1,3415e-004	5,7466e-006
87,	2,861e-012	1,339e-004	5,7892e-006
92,	3,0158e-012	1,3363e-004	5,8556e-006
97,	3,7198e-012	1,3335e-004	5,9257e-006
100,	3,7936e-012	1,3318e-004	5,9678e-006
101,	3,8099e-012	1,3312e-004	5,9818e-006
102,	3,829e-012	1,3307e-004	5,9957e-006

105,	3,9088e-012	1,3289e-004	6,0363e-006
114,	4,4378e-012	1,3238e-004	6,1482e-006
124,	5,5737e-012	1,3182e-004	6,262e-006
134,	7,3961e-012	1,3128e-004	6,3653e-006
144,	1,0029e-011	1,3075e-004	6,4588e-006
154,	1,3611e-011	1,3024e-004	6,5434e-006
164,	1,7796e-011	1,2975e-004	6,6199e-006
174,	2,3753e-011	1,2927e-004	6,6892e-006
184,	3,1511e-011	1,2882e-004	6,7518e-006
194,	4,0247e-011	1,2838e-004	6,8084e-006
200,	4,6021e-011	1,2813e-004	6,8404e-006
203,	4,9042e-011	1,2799e-004	6,8558e-006
206,	5,2197e-011	1,2787e-004	6,8708e-006
215,	6,2846e-011	1,275e-004	6,9118e-006
242,	1,0249e-010	1,2651e-004	7,0055e-006
272,	1,5312e-010	1,2551e-004	7,0827e-006
302,	2,116e-010	1,246e-004	7,139e-006
332,	2,486e-010	1,2376e-004	7,1789e-006
362,	2,0962e-010	1,2298e-004	7,2059e-006
392,	3,2799e-010	1,2225e-004	7,2228e-006
422,	3,809e-010	1,2156e-004	7,2319e-006
452,	4,7394e-010	1,2091e-004	7,2348e-006
482,	2,0187e-010	1,2029e-004	7,2334e-006
500,	2,9533e-010	1,1992e-004	7,2319e-006
505,	4,2179e-010	1,1979e-004	7,2312e-006
510,	5,544e-010	1,1969e-004	7,2307e-006
525,	5,7811e-010	1,194e-004	7,2283e-006
570,	5,9497e-010	1,1857e-004	7,2151e-006
620,	5,3647e-010	1,1768e-004	7,1956e-006
670,	3,2557e-010	1,1684e-004	7,1721e-006
720,	8,0702e-010	1,1772e-004	7,1456e-006
770,	3,0574e-010	1,1946e-004	7,1167e-006
820,	2,0476e-010	1,2109e-004	7,0861e-006
870,	4,3175e-010	1,2261e-004	7,0543e-006
920,	1,1423e-009	1,2403e-004	7,022e-006
970,	1,9271e-009	1,2537e-004	6,9894e-006
1000,	2,4225e-009	1,2614e-004	6,9699e-006
1010,	2,5902e-009	1,2633e-004	6,963e-006
1020,	2,4441e-009	1,2657e-004	6,9566e-006
1050,	9,3258e-010	1,2729e-004	6,9375e-006
1140,	6,6535e-010	1,2921e-004	6,8817e-006
1240,	9,8434e-010	1,3108e-004	6,8234e-006
1340,	1,0682e-009	1,3271e-004	6,7664e-006
1440,	3,1635e-009	1,3413e-004	6,7092e-006
1540,	2,4157e-009	1,3535e-004	6,6516e-006
1640,	2,8456e-009	1,364e-004	6,5937e-006
1740,	3,2138e-009	1,3728e-004	6,5354e-006
1840,	3,2415e-009	1,3801e-004	6,4769e-006
1940,	7,135e-009	1,3861e-004	6,4183e-006
2000,	7,2346e-009	1,3892e-004	6,3832e-006
2052,	6,3221e-009	1,3902e-004	6,3519e-006
2104,	5,4261e-009	1,3923e-004	6,3213e-006
2260,	2,9622e-009	1,3957e-004	6,2289e-006
2728,	4,6319e-009	1,3889e-004	5,9512e-006
3248,	1,1528e-008	1,3665e-004	5,6497e-006
3768,	1,5242e-008	1,3337e-004	5,3578e-006
4288,	1,0609e-008	1,2937e-004	5,0768e-006
4808,	1,0059e-008	1,2489e-004	4,8079e-006
5328,	1,1877e-008	1,2011e-004	4,5514e-006
5848,	9,1075e-009	1,1517e-004	4,3077e-006
6368,	7,1954e-009	1,1017e-004	4,0768e-006
6888,	6,1528e-009	1,0517e-004	3,8585e-006
7200,	5,9057e-009	1,0219e-004	3,732e-006

FIGURE 7
Model (A4) > Transient Thermal (A5) > Solution (A6) > Directional Heat Flux

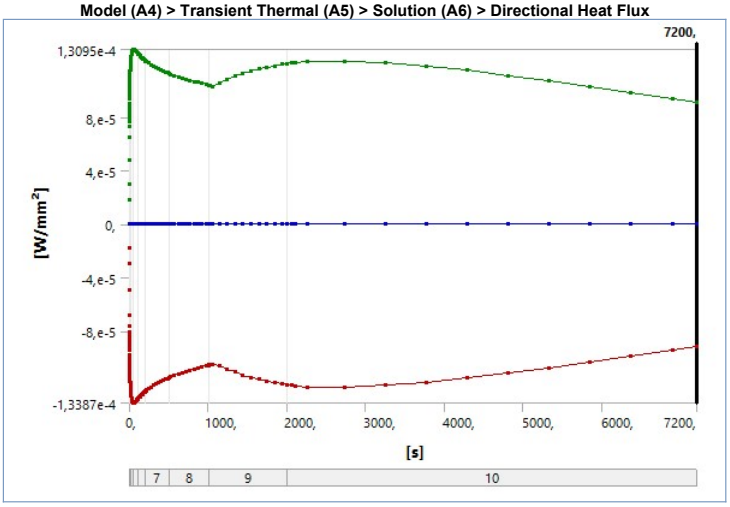


TABLE 27
Model (A4) > Transient Thermal (A5) > Solution (A6) > Directional Heat Flux

Time [s]	Minimum [W/mm²]	Maximum [W/mm²]	Average [W/mm²]
1,e-002	-1,7653e-005	1,8369e-005	-2,7136e-010

2,e-002	-2,9773e-005	3,0199e-005	-4,3837e-010
5,e-002	-4,8776e-005	4,7919e-005	-6,3116e-010
0,14	-6,7937e-005	6,5228e-005	-1,4186e-010
0,24	-7,643e-005	7,2872e-005	1,0614e-009
0,34	-8,0829e-005	7,6913e-005	2,5908e-009
0,44	-8,3672e-005	7,961e-005	4,2482e-009
0,54	-8,5803e-005	8,1693e-005	5,9135e-009
0,64	-8,7544e-005	8,3438e-005	7,515e-009
0,74	-8,9043e-005	8,4968e-005	9,0125e-009
0,84	-9,0377e-005	8,6348e-005	1,0386e-008
0,94	-9,1592e-005	8,7617e-005	1,1627e-008
1,	-9,2286e-005	8,8344e-005	1,2323e-008
1,04	-9,2734e-005	8,8816e-005	1,2767e-008
1,08	-9,317e-005	8,9275e-005	1,3189e-008
1,2	-9,4388e-005	9,0565e-005	1,4278e-008
1,56	-9,7512e-005	9,3883e-005	1,6363e-008
1,96	-1,0049e-004	9,7036e-005	1,769e-008
2,36	-1,0305e-004	9,9744e-005	1,8371e-008
2,76	-1,0527e-004	1,0208e-004	1,8644e-008
3,16	-1,072e-004	1,041e-004	1,8665e-008
3,56	-1,0888e-004	1,0585e-004	1,8539e-008
3,96	-1,1035e-004	1,0738e-004	1,8331e-008
4,36	-1,1165e-004	1,0873e-004	1,8084e-008
4,76	-1,1281e-004	1,0992e-004	1,7823e-008
5,	-1,1346e-004	1,1059e-004	1,7665e-008
5,05	-1,136e-004	1,1073e-004	1,7633e-008
5,1	-1,1373e-004	1,1087e-004	1,76e-008
5,25	-1,1411e-004	1,1126e-004	1,7503e-008
5,7	-1,1513e-004	1,1231e-004	1,7229e-008
6,2	-1,1616e-004	1,1335e-004	1,6956e-008
6,7	-1,1709e-004	1,143e-004	1,6713e-008
7,2	-1,1795e-004	1,1517e-004	1,6502e-008
7,7	-1,1874e-004	1,1597e-004	1,6322e-008
8,2	-1,1949e-004	1,1672e-004	1,6169e-008
8,7	-1,2018e-004	1,1742e-004	1,6042e-008
9,2	-1,2084e-004	1,1808e-004	1,5939e-008
9,7	-1,2145e-004	1,187e-004	1,5857e-008
10,	-1,2181e-004	1,1906e-004	1,5815e-008
10,4	-1,2227e-004	1,1952e-004	1,5771e-008
10,8	-1,2272e-004	1,1996e-004	1,5737e-008
12,	-1,239e-004	1,2114e-004	1,5717e-008
15,6	-1,2658e-004	1,238e-004	1,6048e-008
19,6	-1,2878e-004	1,2598e-004	1,6654e-008
23,6	-1,3039e-004	1,2757e-004	1,7359e-008
27,6	-1,3157e-004	1,2873e-004	1,8083e-008
31,6	-1,3242e-004	1,2956e-004	1,8783e-008
35,6	-1,3302e-004	1,3014e-004	1,9438e-008
39,6	-1,3342e-004	1,3053e-004	2,0039e-008
43,6	-1,3367e-004	1,3077e-004	2,0586e-008
47,6	-1,3381e-004	1,3089e-004	2,1082e-008
50,	-1,3386e-004	1,3093e-004	2,1362e-008
50,5		1,3094e-004	2,1419e-008
51,	-1,3387e-004		2,1476e-008
52,5		1,3095e-004	2,164e-008
57,	-1,3381e-004	1,3088e-004	2,2083e-008
62,	-1,3366e-004	1,3073e-004	2,2525e-008
67,	-1,3345e-004	1,3053e-004	2,2926e-008
72,	-1,332e-004	1,3029e-004	2,3294e-008
77,	-1,3292e-004	1,3001e-004	2,3634e-008
82,	-1,3261e-004	1,2971e-004	2,3953e-008
87,	-1,3229e-004	1,294e-004	2,4255e-008
92,	-1,3195e-004	1,2907e-004	2,4542e-008
97,	-1,316e-004	1,2874e-004	2,4817e-008
100,	-1,3139e-004	1,2854e-004	2,4979e-008
101,	-1,3132e-004	1,2847e-004	2,5032e-008
102,	-1,3125e-004	1,284e-004	2,5085e-008
105,	-1,3104e-004	1,2819e-004	2,5241e-008
114,	-1,304e-004	1,2759e-004	2,569e-008
124,	-1,2971e-004	1,2692e-004	2,6171e-008
134,	-1,2904e-004	1,2628e-004	2,6637e-008
144,	-1,2838e-004	1,2565e-004	2,709e-008
154,	-1,2775e-004	1,2505e-004	2,7534e-008
164,	-1,2714e-004	1,2446e-004	2,7967e-008
174,	-1,2655e-004	1,239e-004	2,8391e-008
184,	-1,2598e-004	1,2336e-004	2,8807e-008
194,	-1,2544e-004	1,2284e-004	2,9214e-008
200,	-1,2512e-004	1,2253e-004	2,9454e-008
203,	-1,2495e-004	1,2237e-004	2,9573e-008
206,	-1,2479e-004	1,2222e-004	2,9692e-008
215,	-1,2434e-004	1,2179e-004	3,0042e-008
242,	-1,231e-004	1,2062e-004	3,1029e-008
272,	-1,2186e-004	1,1944e-004	3,2052e-008
302,	-1,2072e-004	1,1836e-004	3,3005e-008
332,	-1,1968e-004	1,1738e-004	3,3892e-008
362,	-1,1871e-004	1,1647e-004	3,4717e-008
392,	-1,1781e-004	1,1563e-004	3,5486e-008
422,	-1,1697e-004	1,1484e-004	3,6204e-008
452,	-1,1617e-004	1,1409e-004	3,6875e-008
482,	-1,1542e-004	1,1339e-004	3,7503e-008
500,	-1,1498e-004	1,1298e-004	3,7865e-008
505,	-1,1483e-004	1,1284e-004	3,7962e-008
510,	-1,147e-004	1,1272e-004	3,8061e-008
525,	-1,1435e-004	1,1239e-004	3,8347e-008
570,	-1,1335e-004	1,1146e-004	3,9133e-008

620,	-1,1231e-004	1,1049e-004	3,993e-008
670,	-1,1131e-004	1,0956e-004	4,0662e-008
720,	-1,1036e-004	1,0867e-004	4,1337e-008
770,	-1,0945e-004	1,0781e-004	4,1961e-008
820,	-1,0856e-004	1,0698e-004	4,2541e-008
870,	-1,0771e-004	1,0618e-004	4,3081e-008
920,	-1,0688e-004	1,054e-004	4,3585e-008
970,	-1,0607e-004	1,0464e-004	4,4056e-008
1000,	-1,0559e-004	1,0419e-004	4,4327e-008
1010,	-1,0539e-004	1,0399e-004	4,4413e-008
1020,	-1,0522e-004	1,0384e-004	4,4501e-008
1050,	-1,0476e-004	1,034e-004	4,4754e-008
1140,	-1,0559e-004	1,0568e-004	4,5432e-008
1240,	-1,083e-004	1,084e-004	4,6098e-008
1340,	-1,1068e-004	1,1078e-004	4,6683e-008
1440,	-1,1277e-004	1,1286e-004	4,7196e-008
1540,	-1,1458e-004	1,1468e-004	4,7642e-008
1640,	-1,1616e-004	1,1625e-004	4,8027e-008
1740,	-1,1752e-004	1,1761e-004	4,8356e-008
1840,	-1,1868e-004	1,1877e-004	4,8632e-008
1940,	-1,1966e-004	1,1975e-004	4,886e-008
2000,	-1,2019e-004	1,2028e-004	4,898e-008
2052,	-1,206e-004	1,2069e-004	4,9065e-008
2104,	-1,2097e-004	1,2107e-004	4,9142e-008
2260,	-1,2176e-004	1,2186e-004	4,9283e-008
2728,	-1,2206e-004	1,2215e-004	4,9095e-008
3248,	-1,2079e-004	1,2086e-004	4,834e-008
3768,	-1,1843e-004	1,185e-004	4,72e-008
4288,	-1,1523e-004	1,153e-004	4,5795e-008
4808,	-1,1148e-004	1,1154e-004	4,4216e-008
5328,	-1,0737e-004	1,0743e-004	4,2531e-008
5848,	-1,0306e-004	1,0313e-004	4,0789e-008
6368,	-9,8703e-005	9,8767e-005	3,9028e-008
6888,	-9,4315e-005	9,4376e-005	3,7274e-008
7200,	-9,1686e-005	9,1745e-005	3,623e-008

Material Data

Air(Atmospheric)

TABLE 28
Air(Atmospheric) > Constants

Density	1,225e-009 kg mm^-3
Specific Heat	7,176e+005 mJ kg^-1 C^-1
Thermal Conductivity	2,42e-005 W mm^-1 C^-1

TABLE 29
Air(Atmospheric) > Ideal Gas EOS

Adiabatic Exponent γ	Adiabatic Constant	Pressure Shift MPa	Reference Temperature C	Specific Internal Energy mJ kg^-1
1,4	0,	0,	15,05	2,e+008

TABLE 30
Air(Atmospheric) > Color

Red	Green	Blue
181,	155,	130,

PVC

TABLE 31
PVC > Constants

Density	1,2e-006 kg mm^-3
Thermal Conductivity	1,5e-004 W mm^-1 C^-1
Specific Heat	9,e+005 mJ kg^-1 C^-1

TABLE 32
PVC > Color

Red	Green	Blue
130,	177,	176,

Isopor

TABLE 33
Isopor > Constants

Thermal Conductivity	3,3e-005 W mm^-1 C^-1
Specific Heat	1,4e+006 mJ kg^-1 C^-1
Density	5,e-008 kg mm^-3

TABLE 34
Isopor > Color

Red	Green	Blue
109,	157,	209,

Wood

TABLE 35
Wood > Constants

Thermal Conductivity	1,73e-004 W mm^-1 C^-1

TABLE 36
Wood > Density

Density kg mm^-3
7,e-007

TABLE 37

Wood > Specific Heat Constant Pressure

Specific Heat mJ kg^-1 C^-1
2,31e+006

TABLE 38
Wood > Latent Heat

Latent Heat mJ kg^-1
0,

TABLE 39
Wood > Vaporization Temperature

Vaporization Temperature C
126,85

TABLE 40
Wood > Boiling Point

Boiling Point C
126,85

TABLE 41
Wood > Binary Diffusivity

Binary Diffusivity
4,e-005

TABLE 42
Wood > Volatile Fraction

Volatile Fraction
0,8

TABLE 43
Wood > Combustible Fraction

Combustible Fraction
0,2

TABLE 44
Wood > Swelling Coefficient

Swelling Coefficient
1,

TABLE 45
Wood > Emissivity

Emissivity
0,9

TABLE 46
Wood > Scattering Factor

Scattering Factor
0,9

TABLE 47
Wood > Burn Stoichiometry

Burn Stoichiometry
2,67

TABLE 48
Wood > Burn Hreact

Burn Hreact
3,2789e+007

TABLE 49
Wood > Burn Hreact Fraction

Burn Hreact Fraction
0,3

TABLE 50
Wood > Devolatilization Model

Devolatilization Model
20,

TABLE 51
Wood > Absorption Coefficient

Absorption Coefficient mm^-1
0,

TABLE 52
Wood > Color

Red	Green	Blue
103,	192,	205,

Aluminum Alloy

TABLE 53
Aluminum Alloy > Constants

Density	2,77e-006 kg mm^-3
Coefficient of Thermal Expansion	2,3e-005 C^-1
Specific Heat	8,75e+005 mJ kg^-1 C^-1

TABLE 54
Aluminum Alloy > Color

Red	Green	Blue
138,	104,	46,

TABLE 55
Aluminum Alloy > Compressive Ultimate Strength

Compressive Ultimate Strength MPa
0,

TABLE 56
Aluminum Alloy > Compressive Yield Strength

Compressive Yield Strength MPa
280,

TABLE 57
Aluminum Alloy > Tensile Yield Strength

Tensile Yield Strength MPa
280,

TABLE 58
Aluminum Alloy > Tensile Ultimate Strength

Tensile Ultimate Strength MPa
310,

TABLE 59
Aluminum Alloy > Isotropic Secant Coefficient of Thermal Expansion

Zero-Thermal-Strain Reference Temperature C
22,

TABLE 60
Aluminum Alloy > Isotropic Thermal Conductivity

Thermal Conductivity W mm^-1 C^-1	Temperature C
0,114	-100,
0,144	0,
0,165	100,
0,175	200,

TABLE 61
Aluminum Alloy > Alternating Stress R-Ratio

Alternating Stress MPa	Cycles	R-Ratio
275,8	1700,	-1,
241,3	5000,	-1,
206,8	34000	-1,
172,4	1,4e+005	-1,
137,9	8,e+005	-1,
117,2	2,4e+006	-1,
89,63	5,5e+007	-1,
82,74	1,e+008	-1,
170,6	50000	-0,5
139,6	3,5e+005	-0,5
108,6	3,7e+006	-0,5
87,91	1,4e+007	-0,5
77,57	5,e+007	-0,5
72,39	1,e+008	-0,5
144,8	50000	0,
120,7	1,9e+005	0,
103,4	1,3e+006	0,
93,08	4,4e+006	0,
86,18	1,2e+007	0,
72,39	1,e+008	0,
74,12	3,e+005	0,5
70,67	1,5e+006	0,5
66,36	1,2e+007	0,5
62,05	1,e+008	0,5

TABLE 62
Aluminum Alloy > Isotropic Resistivity

Resistivity ohm mm	Temperature C
2,43e-005	0,
2,67e-005	20,
3,63e-005	100,

TABLE 63
Aluminum Alloy > Isotropic Elasticity

Temperature C	Young's Modulus MPa	Poisson's Ratio	Bulk Modulus MPa	Shear Modulus MPa
	71000	0,33	69608	26692

TABLE 64
Aluminum Alloy > Isotropic Relative Permeability

Relative Permeability
1,

Glass

TABLE 65
Glass > Constants

Thermal Conductivity	1,4e-003 W mm^-1 C^-1
Density	2,5e-006 kg mm^-3
Specific Heat	7,5e+005 mJ kg^-1 C^-1

TABLE 66
Glass > Color

Red	Green	Blue
181,	168,	168,