

ANSYS R17.0 Academic

A1: Statisch-mechanische Analyse
 Statisch-mechanisch
 Zeit: 0,5075 s
 09.05.2017 15:10

Druck: 304,5 MPa
 Fixierte Lagerung
 Externe Verschiebung

Geometrie (Druckvorschau) Berichtvorschau /

Graph (Diagramm)

Meldungen: 1 Meldung Keine Auswahl

Metrisch (mm, kg, N, s, mV, mA) Grad rad/s Celsius

15:10 09.05.2017

ANSYS R17.0 Academic

A1: Statisch-mechanische Analyse
 Gesamtverformung
 Typ: Gesamtverformung
 Einheit: mm
 Zeit: 1
 09.05.2017 15:11

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 55,967
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 43,709
 39,623
 35,537
 31,451
 27,365
 23,279
 19,193
 15,107
 11,021
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Geometrie (Druckvorschau) Berichtvorschau /

Animation 10 Animationenbilder 2 sek. (Autom.) 3 Zyklen

Meldungen: 1 Meldung Keine Auswahl

Metrisch (mm, kg, N, s, mV, mA) Grad rad/s Celsius

15:11 09.05.2017

ANSYS Academic Teaching Advanced

Statik-mechanische Analyse - Mechanical [ANSYS Academic Teaching Advanced]

ANSYS R17.0 Academic

Statik-mechanische Analyse
 Vergleichsspannung
 Typ: Vergleichsspannung (von Mises)
 Einheit: MPa
 Zeit: 1
 09.05.2017 15:11

1,553e+5 Max
 0,00010697 Min

Geometrie (Druckansicht) Bereichsvorschau

Graph (Diagramm)

Animation 10 Animationenbilder 2 Sek. (Autom.) Sp. 3,24/min

Tabellarische Daten

Zeit [s]	Minimum [MPa]	Maximum [MPa]	
1	5e-002	5,3995e-006	7757,5
2	0,1	1,0777e-005	15523
3	0,1375	1,4796e-005	21351
4	0,175	1,8809e-005	27180
5	0,2125	2,4825e-005	35923
6	0,2875	3,084e-005	44664
7	0,37388	3,9859e-005	57774
8	0,46025	4,8877e-005	70881
9	0,54662	6,2402e-005	90537
10	0,70938	7,5924e-005	1,1019e+005
11	0,89922	9,6203e-005	1,3984e+005
12	1	1,0697e-004	1,553e+005

Metric [mm, kg, N, L, mV, mA] Grad rad/s Celsius

Schmier - Workbench

ANSYS Academic Teaching Advanced

Technische Daten

Übersicht von Schema A2: Technische Daten

A	B	C	D	E
Inhalt von Technische Daten	Quelle	Beschreibung		
1 Material		Die Betriebsfestigkeitsdaten bei der Mittelspannung Null kommen aus dem 1999er ASM EPI Code, Abschnitt 8, Div. 2, Tabelle 5-110.1		
2 Baustahl		Die Betriebsfestigkeitsdaten bei der Mittelspannung Null kommen aus dem 1999er ASM EPI Code, Abschnitt 8, Div. 2, Tabelle 5-110.1		
3 Baustahl NL		Die Betriebsfestigkeitsdaten bei der Mittelspannung Null kommen aus dem 1999er ASM EPI Code, Abschnitt 8, Div. 2, Tabelle 5-110.1		

Eigenschaften von Übersichtsziele 4: Baustahl NL

A	B	C	D	E
Eigenschaft	Wert	Einheit		
1 Dichte	7850	kg m ⁻³		
2 E-Modul	2,1e+05	MPa		
3 Querkontraktionszahl	0,3			
4 Ableiten von	E-Modul und Querkontraktion...			
5 Kompressionsmodul	1,75E+11	Pa		
6 Schubmodul	8,079E+10	Pa		
7 Streckgrenze	200	MPa		
8 Tangentemodul	100	MPa		

Diagramm der Eigenschaftenserie 1: Bilineare isotrope Verfestigung

Stress [MPa] vs. Dehnung [m m⁻¹]

2,3
2,2
2,1
2,0
1,9
1,8
1,7
1,6
1,5
1,4
1,3
1,2
1,1
1,0
0,9
0,8
0,7
0,6
0,5
0,4
0,3
0,2
0,1
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0 0,0005 0,001 0,0015 0,002 0,0025 0,003 0,0035 0,004 0,0045 0,005

Bilineare isotrope Verfestigung