'[45/-45/-45/45] pi=10 psi'   'Title'

Laminate Stacking Sequence

Material	Type	Lamina Thickness	Lamina Angle
	1	25.000000E-03	45.0000
	1	25.000000E-03	-45.0000
	1	25.000000E-03	-45.0000
	1	25.000000E-03	45.0000

NRANK= 10
Ri=   30.000000E+00

Material   T300/5208 ENG
E1= 19.20E+06   E2= 1.56E+06   G12= 820.00E+03   PR12=0.2400
PR23=0.5900
alpha1=   -0.43E-06   alpha2=   0.14E-04

Px= 0.000000E+00
T= 0.000000E+00
Pin= 0.100000E+02
Pout= 0.000000E+00
delta T= 0.000000E+00

3D Stiffness Matrix C

0.1965E+08	0.9345E+06	0.9345E+06	0.0000E+00	0.0000E+00	0.0000E+00
0.9345E+06	0.2437E+07	0.1456E+07	0.0000E+00	0.0000E+00	0.0000E+00
0.9345E+06	0.1456E+07	0.2437E+07	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.4906E+06	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.8200E+06	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.8200E+06

Layer # 1
C Bar Matrix

0.68E+07	0.52E+07	0.12E+07	0.00E+00	0.00E+00	0.43E+07
0.52E+07	0.68E+07	0.12E+07	0.00E+00	0.00E+00	0.43E+07
0.12E+07	0.12E+07	0.24E+07	0.00E+00	0.00E+00	-0.26E+06
0.00E+00	0.00E+00	0.00E+00	0.66E+06	0.16E+06	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.16E+06	0.66E+06	0.00E+00
0.43E+07	0.43E+07	-0.26E+06	0.00E+00	0.00E+00	0.51E+07

Off-axis CTE
1   6.58E-06
2   6.59E-06

3 13.60E-06
4 0.00E+00
5 0.00E+00
6 -14.03E-06

Layer # 2
C Bar Matrix

0.68E+07	0.52E+07	0.12E+07	0.00E+00	0.00E+00	-0.43E+07
0.52E+07	0.68E+07	0.12E+07	0.00E+00	0.00E+00	-0.43E+07
0.12E+07	0.12E+07	0.24E+07	0.00E+00	0.00E+00	0.26E+06
0.00E+00	0.00E+00	0.00E+00	0.66E+06	-0.16E+06	0.00E+00
0.00E+00	0.00E+00	0.00E+00	-0.16E+06	0.66E+06	0.00E+00
-0.43E+07	-0.43E+07	0.26E+06	0.00E+00	0.00E+00	0.51E+07

Off-axis CTE
1 6.58E-06
2 6.59E-06
3 13.60E-06
4 0.00E+00
5 0.00E+00
6 14.03E-06

Layer # 3
C Bar Matrix

0.68E+07	0.52E+07	0.12E+07	0.00E+00	0.00E+00	-0.43E+07
0.52E+07	0.68E+07	0.12E+07	0.00E+00	0.00E+00	-0.43E+07
0.12E+07	0.12E+07	0.24E+07	0.00E+00	0.00E+00	0.26E+06
0.00E+00	0.00E+00	0.00E+00	0.66E+06	-0.16E+06	0.00E+00
0.00E+00	0.00E+00	0.00E+00	-0.16E+06	0.66E+06	0.00E+00
-0.43E+07	-0.43E+07	0.26E+06	0.00E+00	0.00E+00	0.51E+07

Off-axis CTE
1 6.58E-06
2 6.59E-06
3 13.60E-06
4 0.00E+00
5 0.00E+00
6 14.03E-06

Layer # 4
C Bar Matrix

0.68E+07	0.52E+07	0.12E+07	0.00E+00	0.00E+00	0.43E+07
0.52E+07	0.68E+07	0.12E+07	0.00E+00	0.00E+00	0.43E+07
0.12E+07	0.12E+07	0.24E+07	0.00E+00	0.00E+00	-0.26E+06
0.00E+00	0.00E+00	0.00E+00	0.66E+06	0.16E+06	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.16E+06	0.66E+06	0.00E+00
0.43E+07	0.43E+07	-0.26E+06	0.00E+00	0.00E+00	0.51E+07

Off-axis CTE
1 6.58E-06
2 6.59E-06
3 13.60E-06
4 0.00E+00
5 0.00E+00

6 -14.03E-06

Lamina Constants

Lamina	lamda	Gamma	Omega	Sigmahat	Psi
1	0.167134E+01	-0.908961E+00	0.164043E+01	0.177919E+02	-0.407016E-05
2	0.167134E+01	-0.908961E+00	-0.164043E+01	0.177919E+02	-0.407016E-05
3	0.167134E+01	-0.908961E+00	-0.164043E+01	0.177919E+02	-0.407016E-05
4	0.167134E+01	-0.908961E+00	0.164043E+01	0.177919E+02	-0.407016E-05

Km Matrix

Rho & Elf Terms

Index	R	Elf
1	-0.6734E+02	-0.1000E+02
2	0.0000E+00	-0.0000E+00
3	0.0000E+00	-0.0000E+00
4	0.0000E+00	-0.0000E+00
5	0.0000E+00	-0.0000E+00
6	0.0000E+00	-0.0000E+00
7	0.0000E+00	-0.0000E+00
8	-0.6734E+02	0.0000E+00
9	-0.1145E+04	0.0000E+00
10	0.5265E-03	0.0000E+00

SOLUTION
epsx= -0.775581E-03
gammaxt= 120.694877E-15

w(Ri)= 0.03167016394840432

Lamina	r	epsilon r	epsilon t	gamma xt
1	0.300000E+02	-0.141469E-03	0.105567E-02	0.362085E-11
1	0.300125E+02	-0.140709E-03	0.105517E-02	0.362386E-11
1	0.300250E+02	-0.139950E-03	0.105468E-02	0.000000E+00
2	0.300250E+02	-0.139950E-03	0.105468E-02	0.362386E-11
2	0.300375E+02	-0.139192E-03	0.105418E-02	0.362688E-11
2	0.300500E+02	-0.138435E-03	0.105368E-02	0.000000E+00
3	0.300500E+02	-0.138435E-03	0.105368E-02	0.362688E-11
3	0.300625E+02	-0.137680E-03	0.105319E-02	0.362990E-11
3	0.300750E+02	-0.136926E-03	0.105269E-02	0.000000E+00
4	0.300750E+02	-0.136926E-03	0.105269E-02	0.362990E-11
4	0.300875E+02	-0.136173E-03	0.105220E-02	0.363292E-11
4	0.301000E+02	-0.135421E-03	0.105170E-02	0.000000E+00

Lamina	r	sigma x	sigma t	sigma r	tau xt
1	0.300000E+02	0.665357E+01	0.300991E+04	-0.100000E+02	0.124208E+04
1	0.300125E+02	0.498606E+01	0.300742E+04	-0.874275E+01	0.123974E+04
1	0.300250E+02	0.332088E+01	0.300494E+04	-0.748757E+01	0.123740E+04

2	0.300250E+02	0.332086E+01	0.300494E+04	-0.748757E+01	-0.123740E+04
2	0.300375E+02	0.165801E+01	0.300247E+04	-0.623448E+01	-0.123506E+04
2	0.300500E+02	-0.249833E-02	0.299999E+04	-0.498345E+01	-0.123273E+04
3	0.300500E+02	-0.251394E-02	0.299999E+04	-0.498345E+01	-0.123273E+04
3	0.300625E+02	-0.166072E+01	0.299752E+04	-0.373450E+01	-0.123040E+04
3	0.300750E+02	-0.331660E+01	0.299505E+04	-0.248761E+01	-0.122807E+04
4	0.300750E+02	-0.331659E+01	0.299505E+04	-0.248761E+01	0.122807E+04
4	0.300875E+02	-0.497017E+01	0.299259E+04	-0.124277E+01	0.122575E+04
4	0.301000E+02	-0.662147E+01	0.299013E+04	0.947854E-06	0.122343E+04

Row	Column	K(i,j)
1	1	0.516897E+08
1	2	-0.326026E+03
1	3	0.000000E+00
1	4	0.000000E+00
1	5	0.000000E+00
1	6	0.000000E+00
1	7	0.000000E+00
1	8	0.000000E+00
1	9	-0.210672E+07
1	10	0.290911E+09
2	1	0.294702E+03
2	2	0.339326E-02
2	3	-0.294702E+03
2	4	-0.339326E-02
2	5	0.000000E+00
2	6	0.000000E+00
2	7	0.000000E+00
2	8	0.000000E+00
2	9	0.000000E+00
2	10	0.295770E+04
3	1	0.517186E+08
3	2	-0.325302E+03
3	3	-0.517186E+08
3	4	0.325302E+03
3	5	0.000000E+00
3	6	0.000000E+00
3	7	0.000000E+00
3	8	0.000000E+00
3	9	0.000000E+00
3	10	0.582307E+09
4	1	0.000000E+00
4	2	0.000000E+00
4	3	0.295112E+03
4	4	0.338854E-02
4	5	-0.295112E+03
4	6	-0.338854E-02
4	7	0.000000E+00
4	8	0.000000E+00
4	9	0.000000E+00
4	10	0.000000E+00
5	1	0.000000E+00
5	2	0.000000E+00
5	3	0.517475E+08
5	4	-0.324579E+03
5	5	-0.517475E+08
5	6	0.324579E+03
5	7	0.000000E+00
5	8	0.000000E+00
5	9	0.000000E+00
5	10	0.000000E+00
6	1	0.000000E+00

6	2	0.000000E+00
6	3	0.000000E+00
6	4	0.000000E+00
6	5	0.295523E+03
6	6	0.338384E-02
6	7	-0.295523E+03
6	8	-0.338384E-02
6	9	0.000000E+00
6	10	-0.296756E+04
7	1	0.000000E+00
7	2	0.000000E+00
7	3	0.000000E+00
7	4	0.000000E+00
7	5	0.517764E+08
7	6	-0.323859E+03
7	7	-0.517764E+08
7	8	0.323859E+03
7	9	0.000000E+00
7	10	-0.583277E+09
8	1	0.000000E+00
8	2	0.000000E+00
8	3	0.000000E+00
8	4	0.000000E+00
8	5	0.000000E+00
8	6	0.000000E+00
8	7	0.518053E+08
8	8	-0.323141E+03
8	9	-0.210672E+07
8	10	0.291881E+09
9	1	0.331528E+09
9	2	0.169126E+04
9	3	0.331989E+09
9	4	0.168891E+04
9	5	0.332451E+09
9	6	0.168656E+04
9	7	0.332913E+09
9	8	0.168422E+04
9	9	0.193337E+08
9	10	0.655955E+04
10	1	0.536840E+10
10	2	0.758602E+05
10	3	-0.538035E+10
10	4	-0.758178E+05
10	5	-0.539232E+10
10	6	-0.757754E+05
10	7	0.540431E+10
10	8	0.757332E+05
10	9	0.246959E+03
10	10	0.191922E+12