
WfWmrhoc

Computes weight fractions for the fiber and matrix as well as the density of the lamina

Inputs

rhof - Density of fiber
rhom - Density of matrix
Vf - Volume fraction of lamina

Outputs

Wf - Weight fraction of fiber
Wm - Weight fraction of matrix
rhoc - Density of lamina

Calling the Function

`[Wf,Wm,rhoc]=WfWmrhoc(rhof,rhom,Vf)`

Testing File

Click [here](#) to see a testing file for using the function WfWmrhoc

Example

Inputs:

Fiber Density: 2500
Matrix Density: 1200
Volume Fraction: 0.7

Outputs:

Lamina Density/Weight Fractions

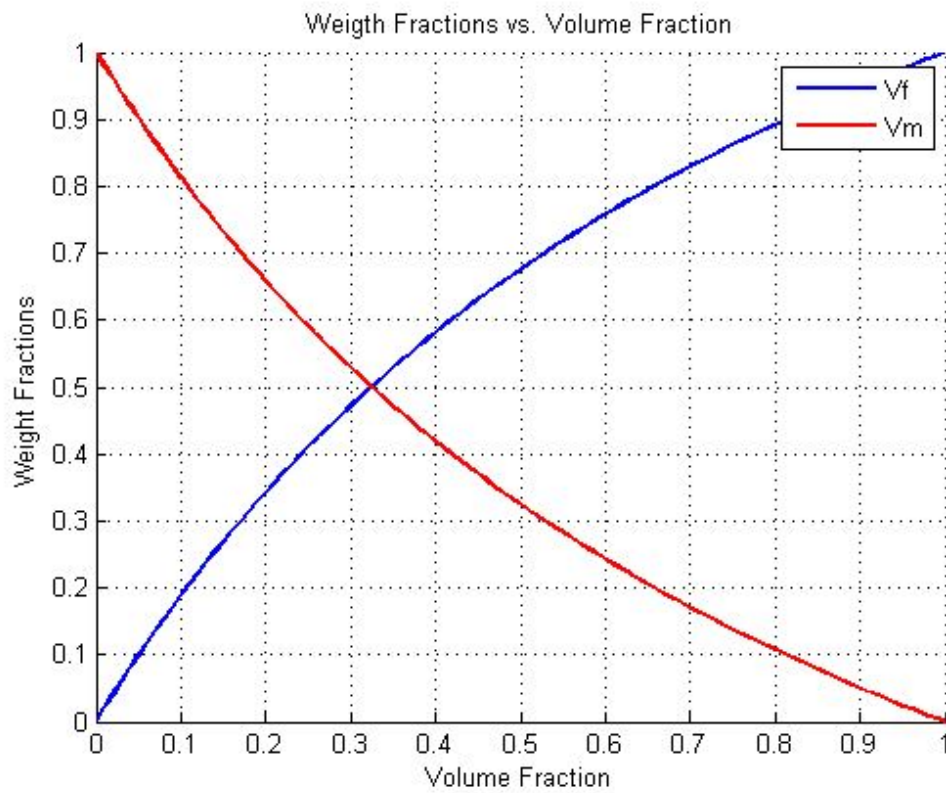
Wf		0.829384
Wm		0.170616
rhoc		2110

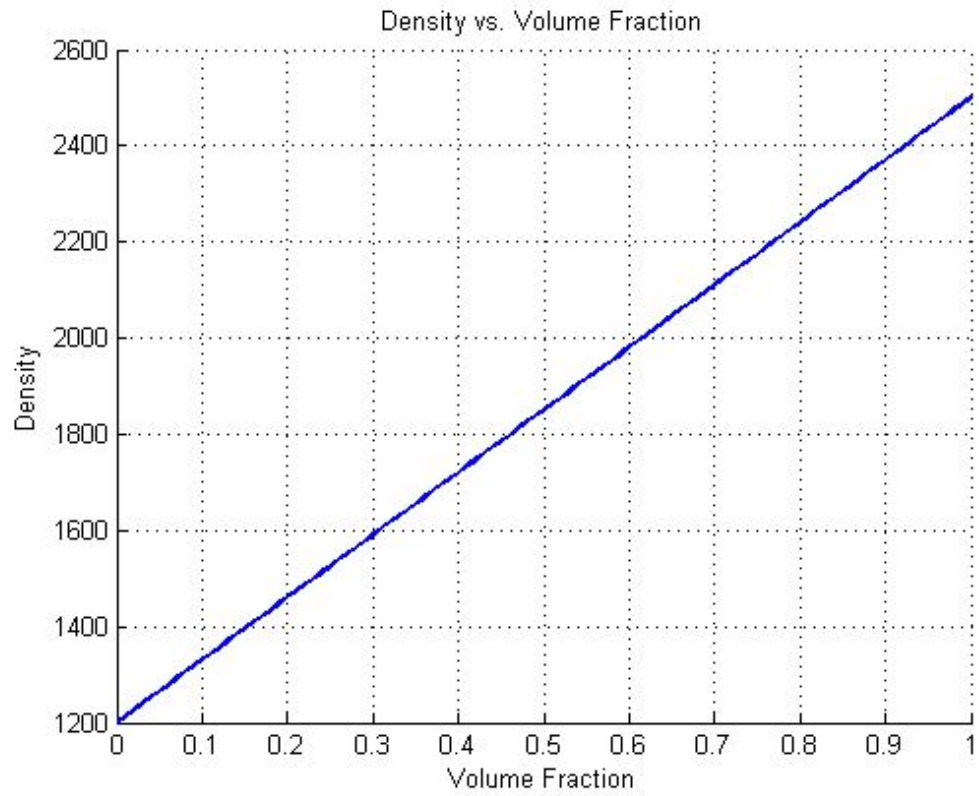
Table:

Lamina Coefficient of Thermal Expansion

Vf	Wf	Wm	rhoc
0.00	0.000000E+00	1.000000E+00	1200
0.10	1.879699E-01	8.120301E-01	1330
0.20	3.424658E-01	6.575342E-01	1460
0.30	4.716981E-01	5.283019E-01	1590
0.40	5.813953E-01	4.186047E-01	1720
0.50	6.756757E-01	3.243243E-01	1850
0.60	7.575758E-01	2.424242E-01	1980
0.70	8.293839E-01	1.706161E-01	2110
0.80	8.928571E-01	1.071429E-01	2240
0.90	9.493671E-01	5.063291E-02	2370
1.00	1.000000E+00	0.000000E+00	2500

Graphs:





Description

Outputs weight fractions of the fiber and matrix as well as the density of the lamina