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January 21, 2013

Jerry Thayer PE
MatCon, Inc.
26828 Maple Valley Hwy.
Suite 207
Maple Valley, WA 98038

Dear Sir:

Re: MatCon® Taylor Lumber – Stiffness testing of slices - 2012

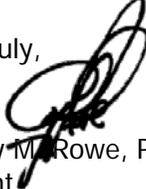
Two cores were evaluated for complex shear stiffness modulus. The locations for the cores are illustrated in Figure 1. Three slices were tested from each core - the top 10 mm layer, the second 10 mm layer and a layer approximately 50 mm from the surface of the core. These were labeled as Top, Layer 2 and Bottom respectively. The complex shear modulus was evaluated of each layer using a temperature frequency sweep at 0.015% strain over the temperature range of -30°C to 60°C. For each test a G^* versus temperature mastercurve at a reference temperature of 20°C was developed.

Discussion

The data summary (see Figure 2) shows that core N2 top layer is almost 1 order of magnitude stiffer at lower frequencies than is the core SE2 top layer. The second and bottom layers are much closer together in stiffness than the top layers. The second layers are about ½ order of magnitude different at low frequency, again with core N2 being stiffer. The bottom layers are nearly identical and making allowances for testing variability these can be regarded as the same. Interestingly the second and bottom layers of core N2 very similar in stiffness with the second layer of N2 being slightly stiffer than the bottom layer. Core SE2 shows relatively little difference in stiffness between all 3 layers and as you can see from an examination of the plot the second layer of SE2 is less stiff than the bottom layer but may just reflect sampling and testing variability. Given the fact that the top layer of SE2 is significantly less stiff than top layer of N2, it could be that core SE2 just has not aged very much.

We trust that this information is sufficient for your purpose.

Yours truly,


Geoffrey M. Rowe, P.E., Ph.D.
President
Abatech, Inc.

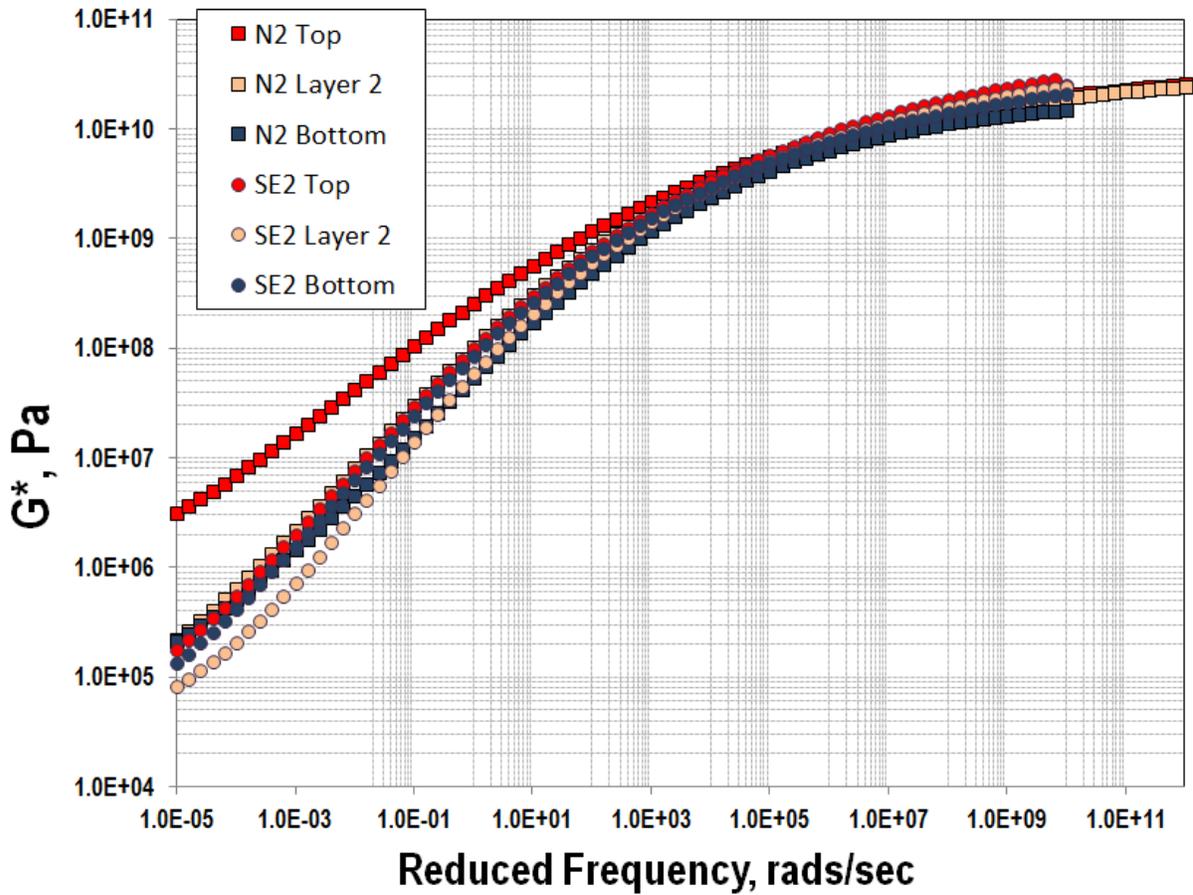


Figure 2: Mastercurve of complex shear stiffness modulus (G^*) at 20°C