

A New Way of Determining the Total Absorption of Gypsum Board Wall Structures

Acoustical Society of America
San Francisco, CA
3 December 2013

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Introduction

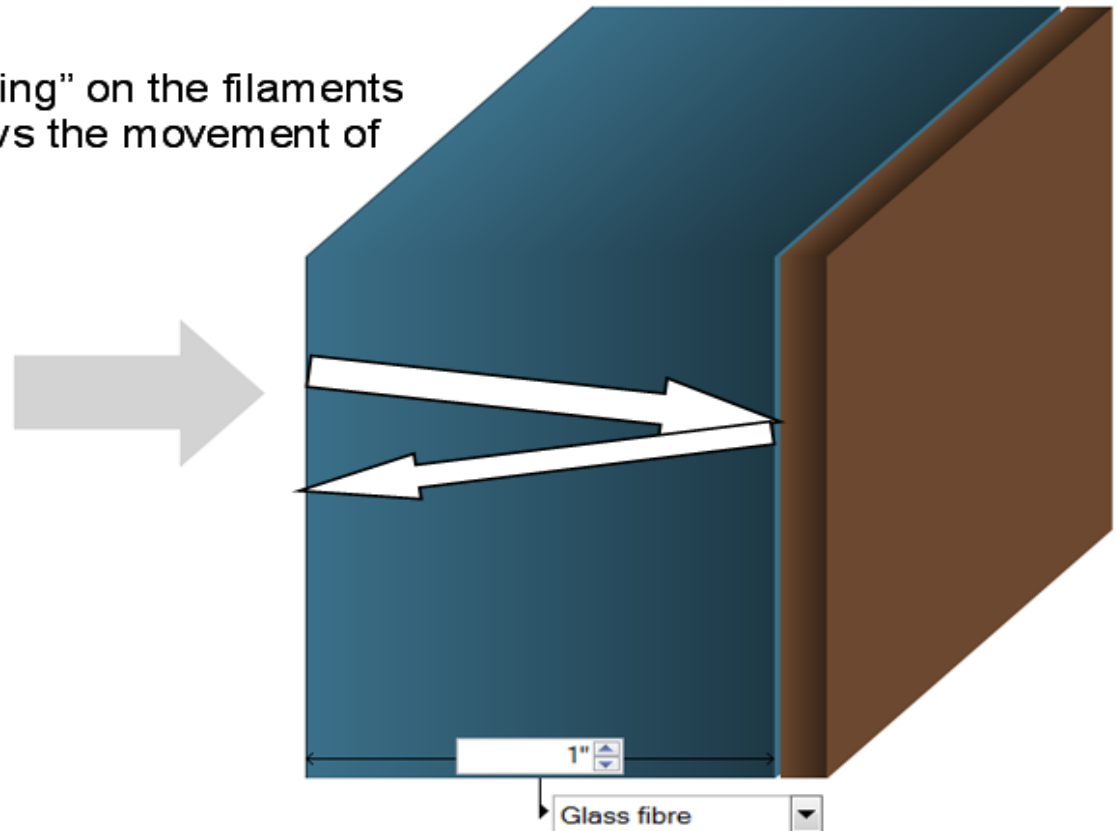
- Applicable Standards.
- ASTM C-423 and ISO-354
- Mounting Standards
- ASTM E-795-05

Topics of Discussion

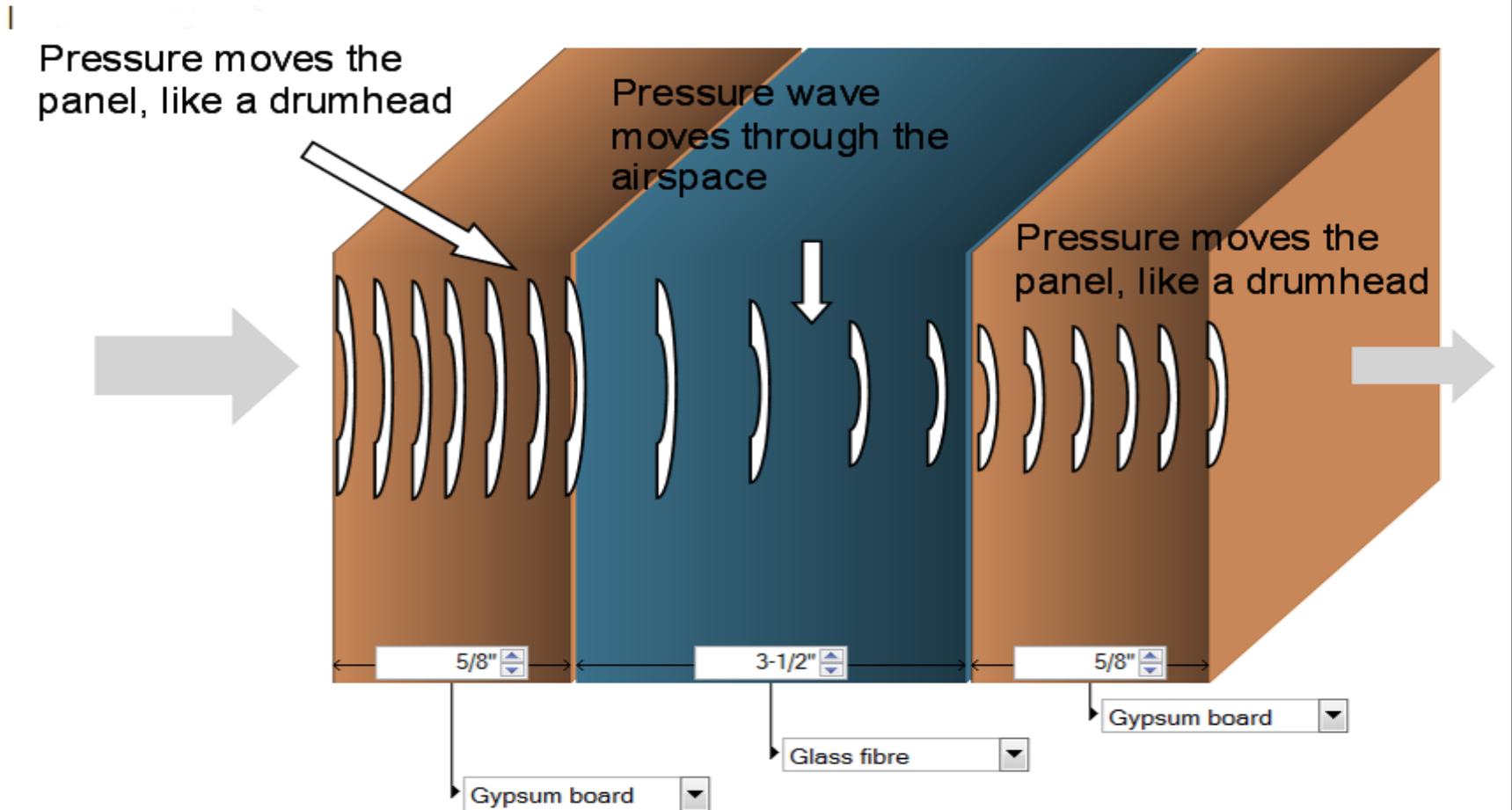
- Material vs Wall Construction
- Frictional Absorption vs Diaphragmatic
- ASTM mounting Methods
- Wall Structure Placement
- Lack of data measured in recent time periods

Friction

Energy is lost by air "rubbing" on the filaments of glass. The rubbing slows the movement of air and turns into heat.



Diaphragm



Reverberation Room

A Type Mount

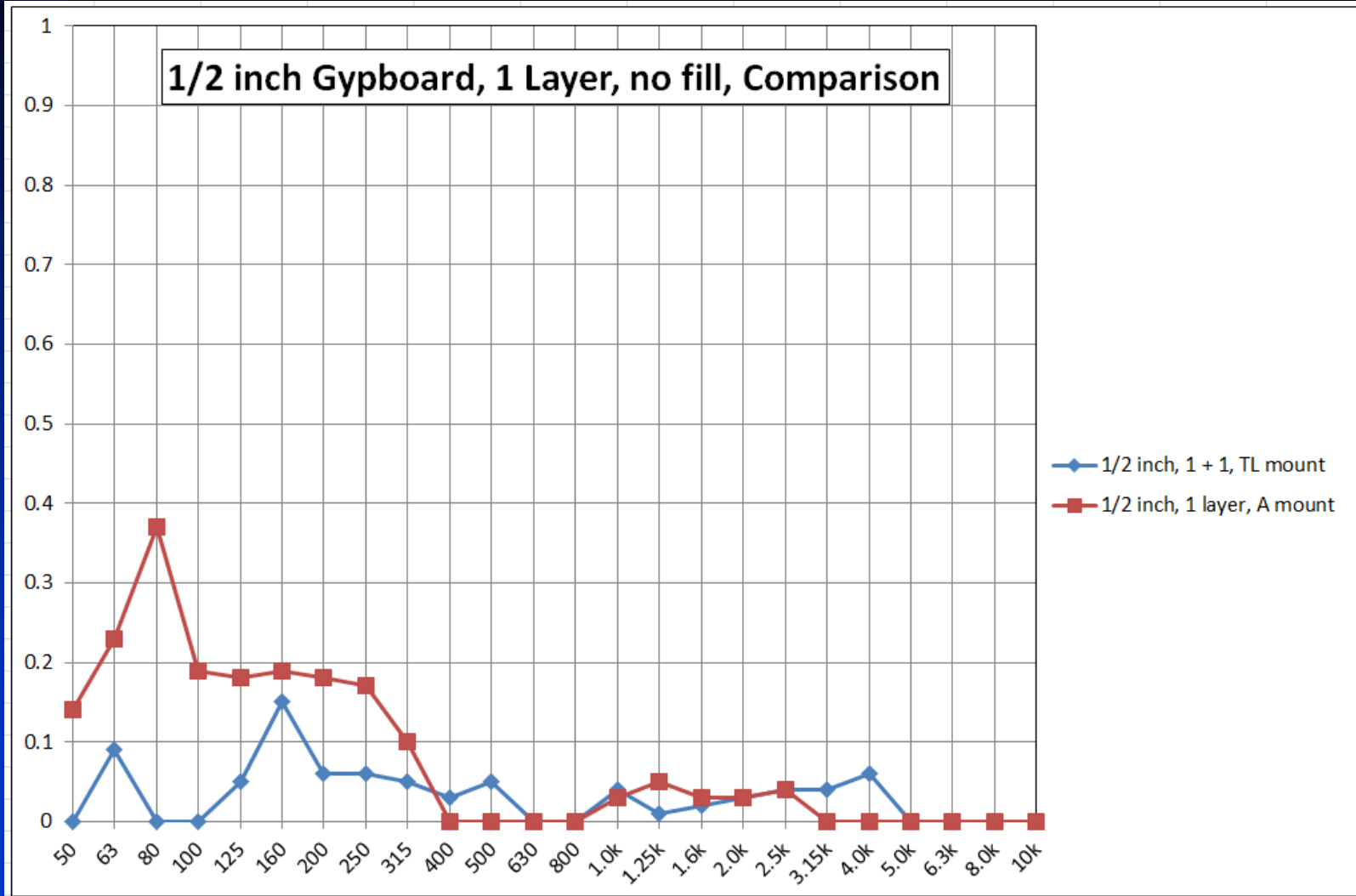


Proposed TL Mount

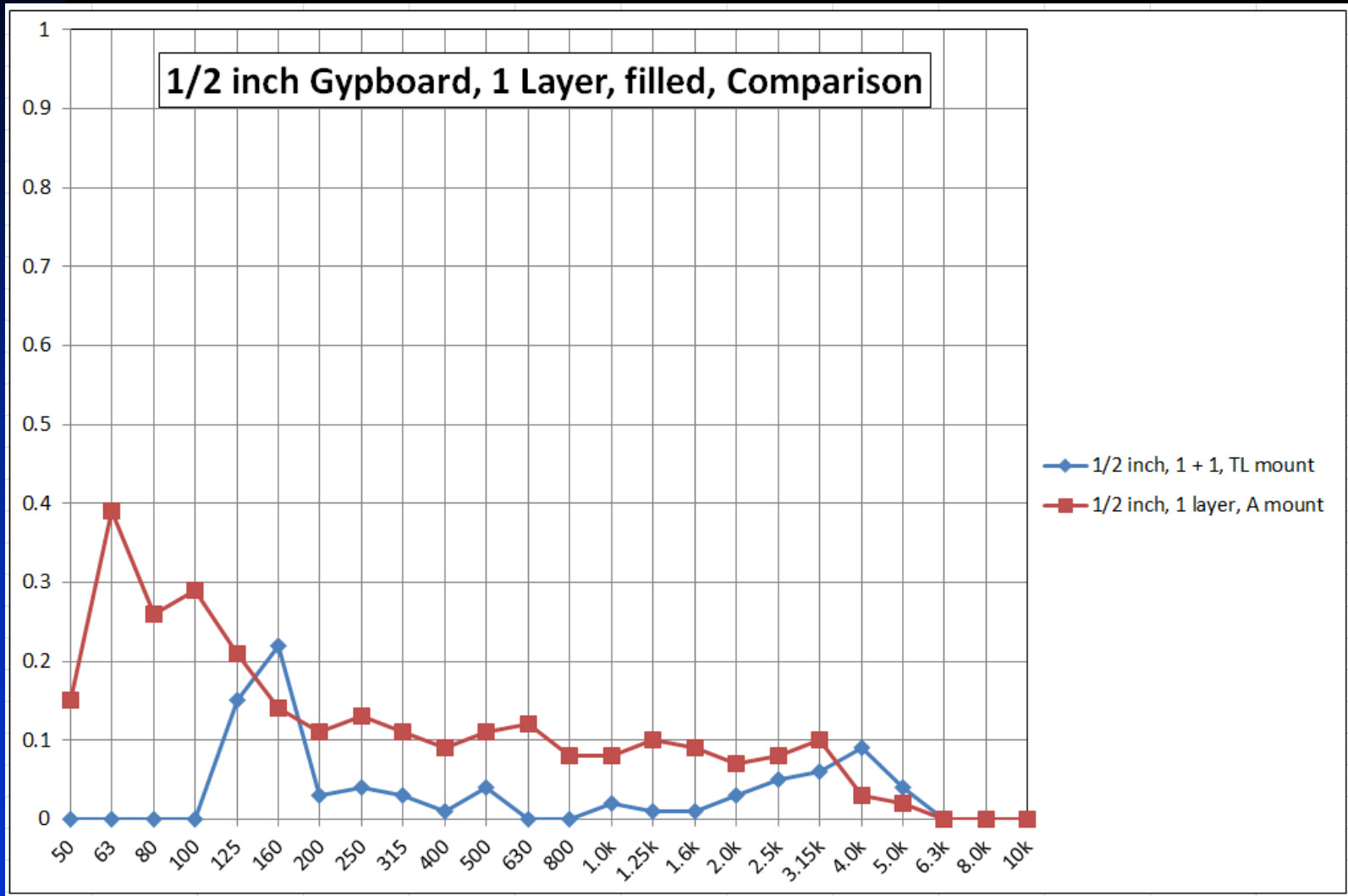
T Type Mount
Fill Wall



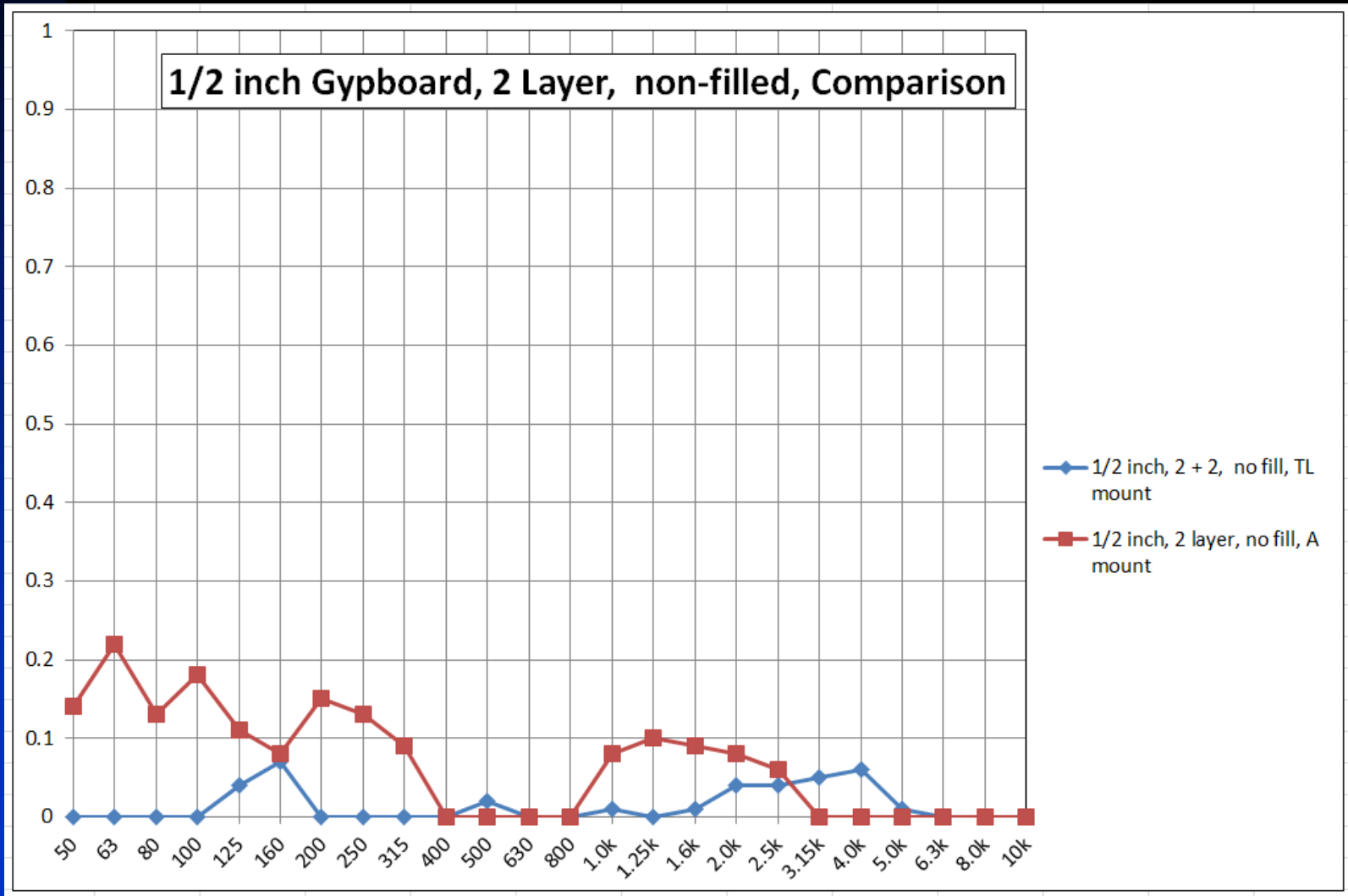
A mount vs TL Mount



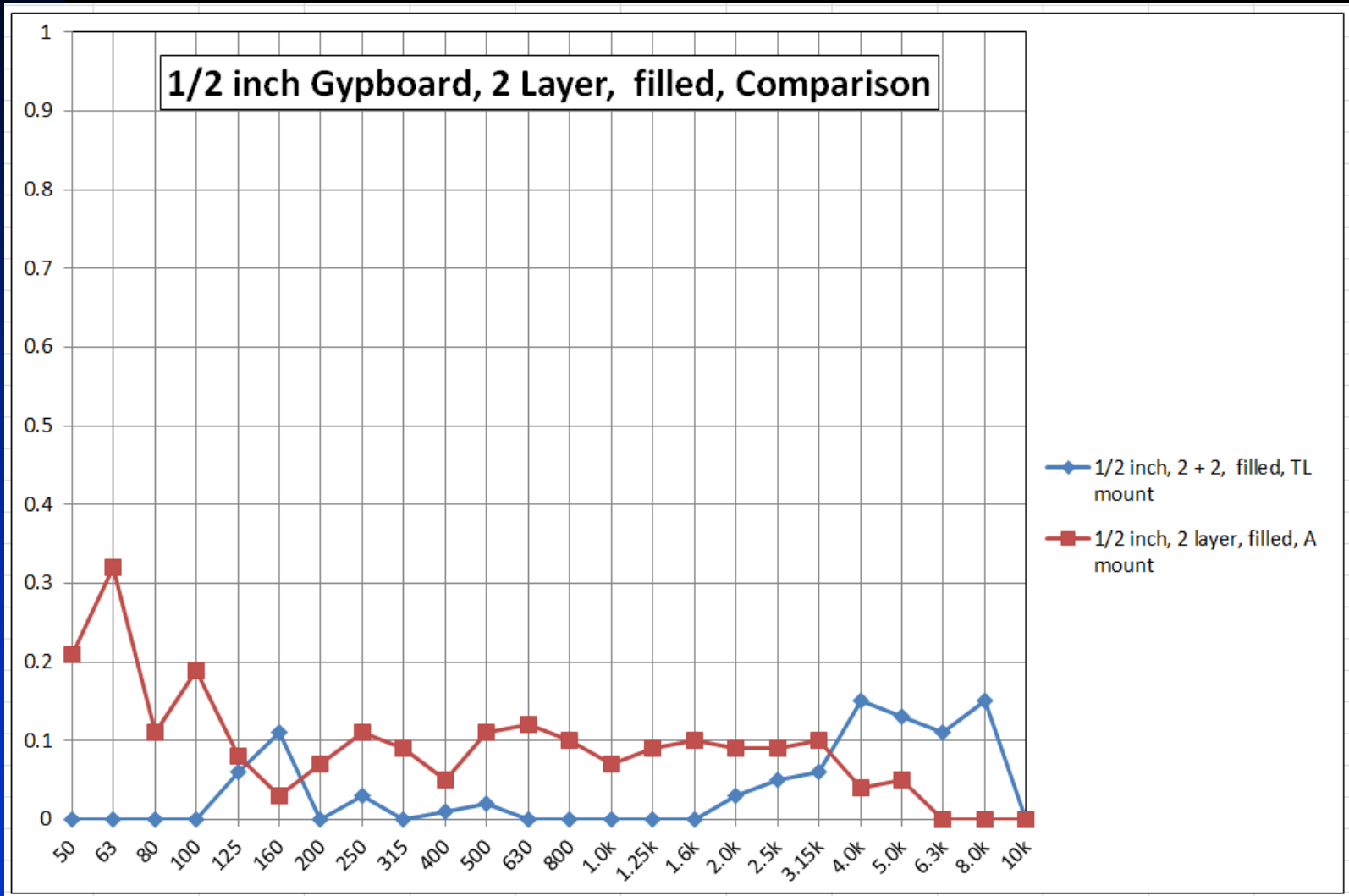
A mount vs TL Mount



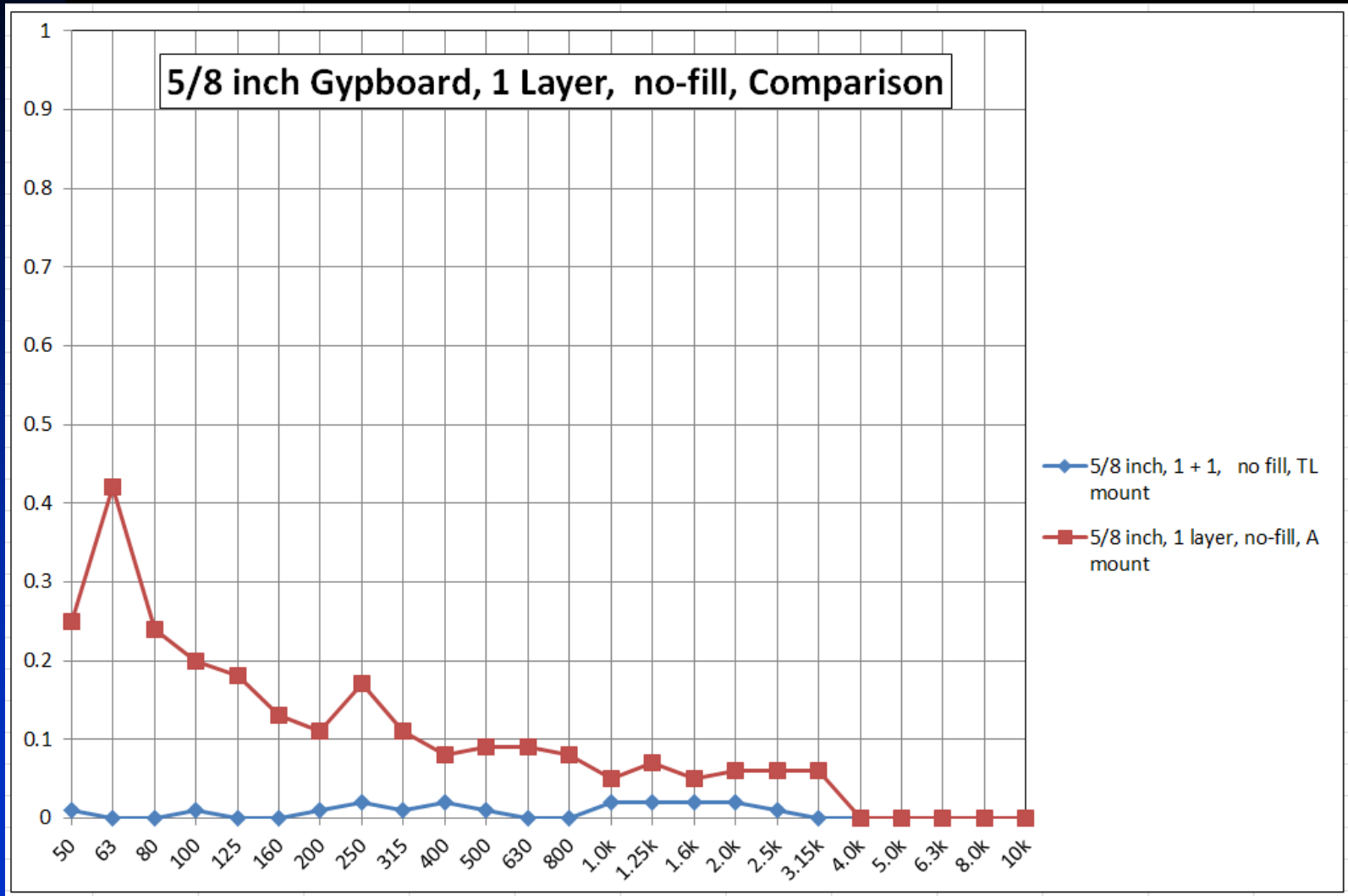
A mount vs TL Mount



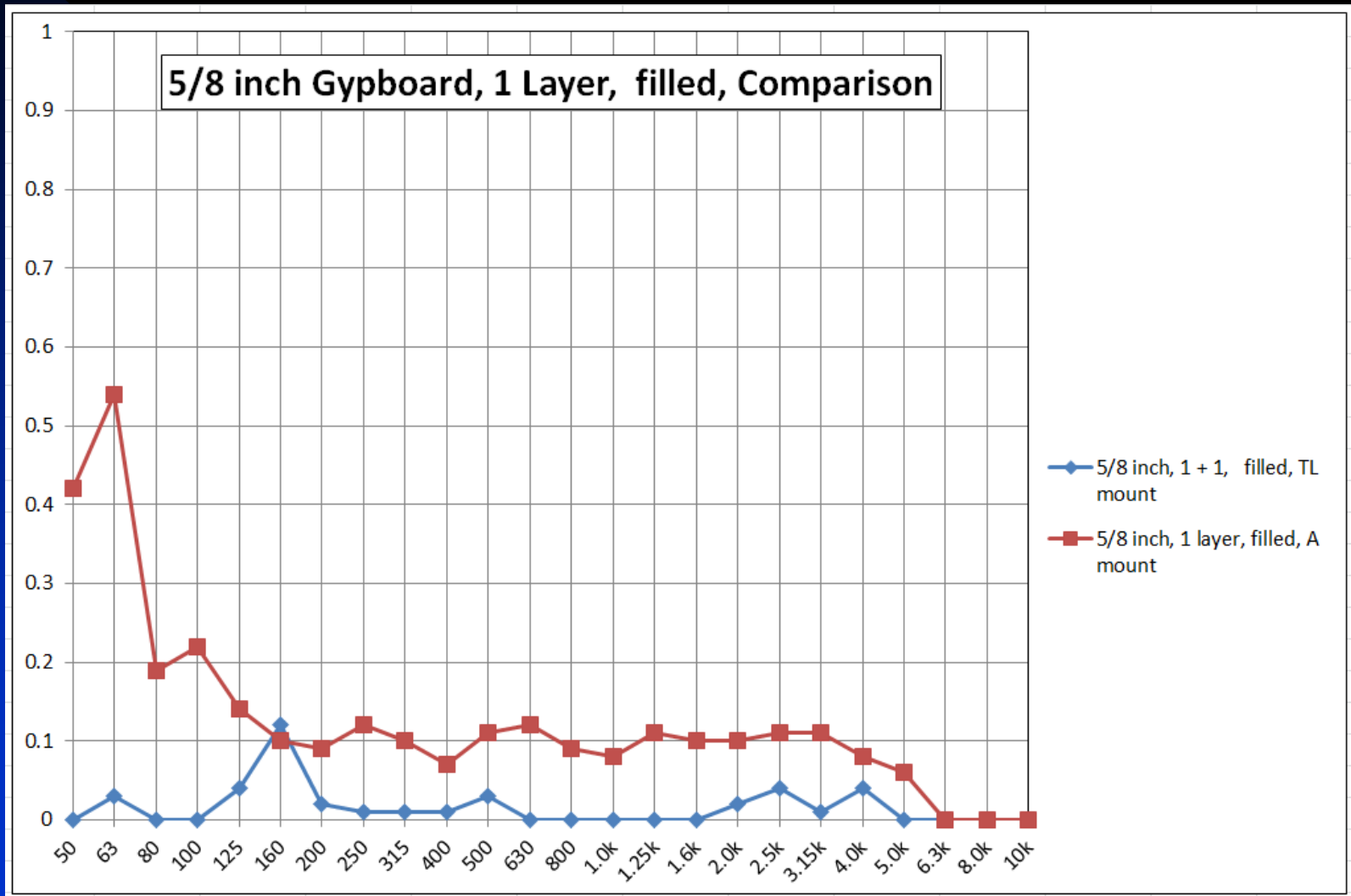
A mount vs TL Mount



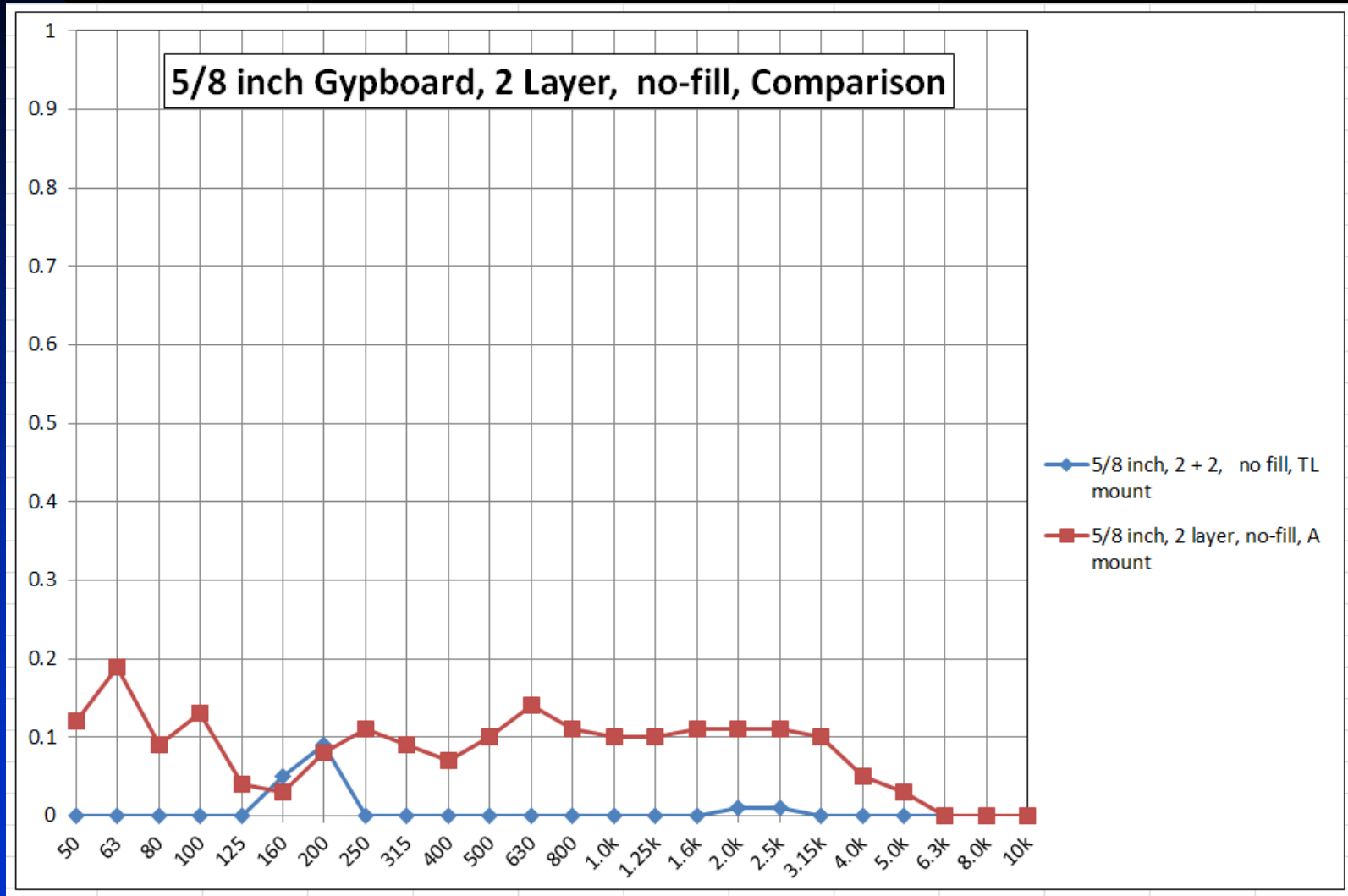
A mount vs TL Mount



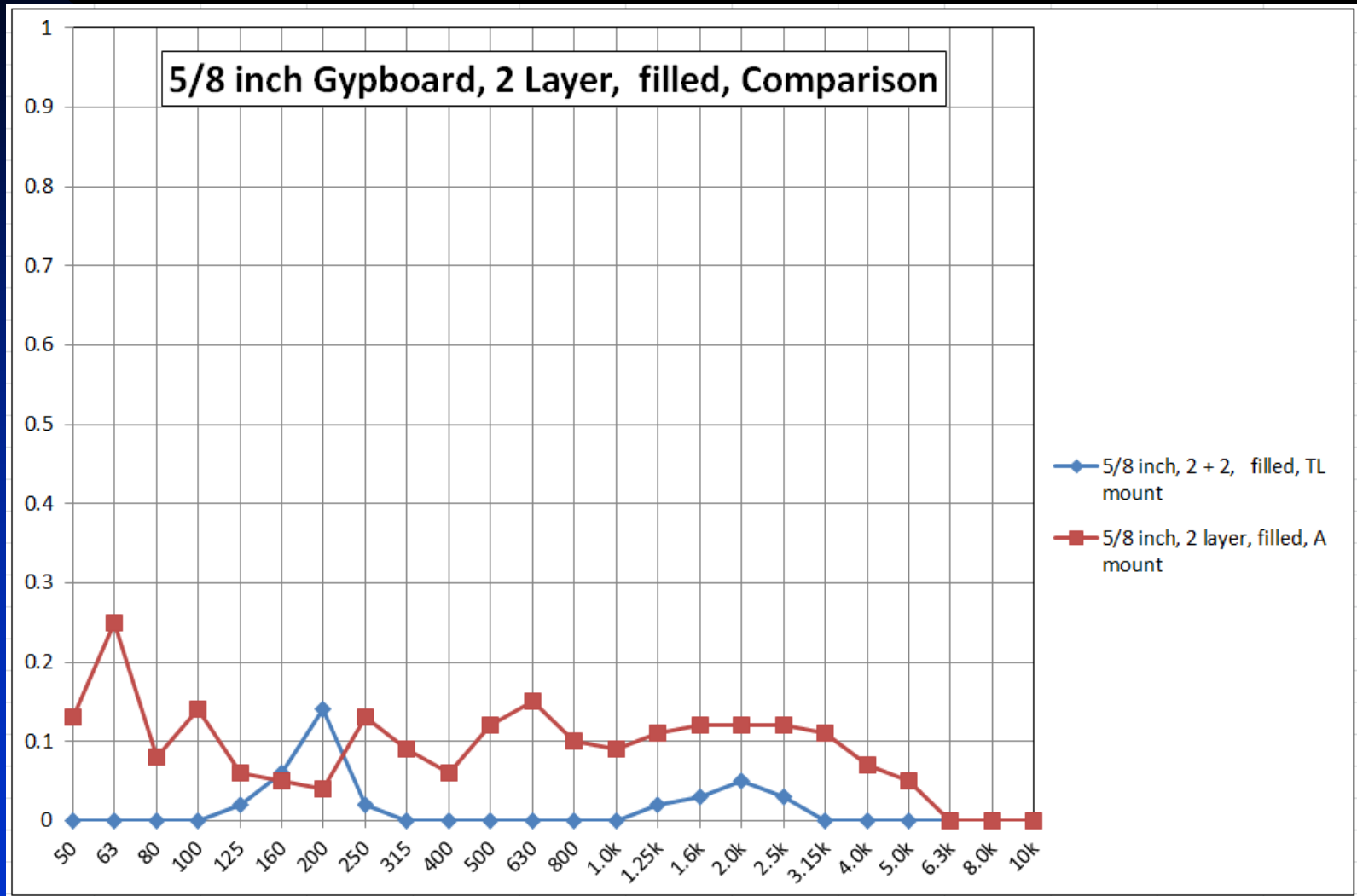
A mount vs TL Mount



A mount vs TL Mount



A mount vs TL Mount



Conclusions

- A Mount simulates a wall built over an exterior wall only
- Interior wall adjoining another room should be measured using the TL mount
- Modeling programs should include both types of data

The image features a dark blue background with a large, textured cylindrical structure on the right side, possibly a water tower, illuminated with blue lights at the top. In the foreground, there are silhouettes of evergreen trees. The text 'NWAA Labs Inc.' is displayed in white, bold, sans-serif font in the upper left quadrant. The text 'Thank You For Your Attention' is displayed in white, sans-serif font in the lower right quadrant.

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Attention