

## Concerning Knee Walls:

When auditing a home that has a finished attic or Cape Cod style construction you will need to “grade” the install of the existing fiber batt on the knee wall. To assist in grading the batt use the BPI chart attached to this message. If the batt is fully filling the cavity with no gaps cracks or compressions it can be graded “good”. If there are gaps or misalignments of 3/8 of an inch it will be graded “fair”. If the gaps exceed 3/4” either on the sides or between the batt and the drywall then it will be graded “poor”.

Using the BPI chart, you will input the effective R-Value for the existing insulation into NEAT. An example of this is a R-13 fiberglass batt graded poor will have an effective R-Value of R-2.5 according to the BPI chart. R-2.5 is what you will input into NEAT.

By installing Tyvek or other air barrier, when installed correctly it will hold the fiber batt in contact with the drywall. This will eliminate the gap between the drywall and the batt. By eliminating the gap, the fiberglass batt will now perform at its stated R-Value.

In order to model how this performs you will need to add insulation types to knee walls. When you add insulation types you will need Tyvek over good, fair, and poor graded insulation; or at least the most common types that you see in the field. The R-Value entered for this insulation type will be: For an R-13 graded poor =  $R-13 - 2.5$  so the Tyvek will have an R-Value of 10.5. For an R-13 graded fair =  $R-13 - 6$  so the Tyvek over fair insulation will have an R-value of 7. For an R-13 over good insulation =  $R-13 - 9$  so the Tyvek over good insulation will have an R-value of 4.

Once you have entered the insulation types you will need to price labor and material for installing the Tyvek or other air barrier. New insulation types automatically list in NEAT as \$9999. Change this \$9999 number to your actual labor and material pricing from your procurement price list or crew labor rate.