

TUF STIK-SPX Moisture Barrier & Sound Reduction Multi-Functional Adhesive

TUF STIK-SPX™ is a cutting edge adhesive with a number of advanced features that complement Sheet Vinyl, Luxury Vinyl Plank and Luxury Vinyl Tile products. Most importantly is the adhesives ability to insulate against sound transmissions. Below are the testing results from independent testing of all TUF STUF™ products.

Table A

| | Testing Company | Sound Testing ASTM E492-09/E989-06 Reapproved 2012 | |
|------------------------|-----------------------|----------------------------------------------------------|-----|
| | | IIC | STC |
| Tuf Stuf™ Product Line | SSF | | |
| T3™ - LVT | SSF | 42 | 56 |
| Woodland Path™ - LVP | SSF | 47 | 56 |
| CC & FF - Sheet Vinyl | SSF | 53 | 55 |
| PYVM - Sheet Vinyl | SSF | 51 | 56 |
| 2mm SV w/Rosin Paper | Adhesive Manufacturer | 59 | 60 |

Sound Testing Definitions

Impact Insulation Class (IIC) testing is designed to measure the impact sound performance of a floor to ceiling assembly in a controlled laboratory environment. A standard tapping machine is used to generate sound through the assembly. The flooring and ceiling assembly consist of flooring material and adhesive, six inches of concrete, and a multi-component ceiling assembly. The IIC rating is used by architects, builders, and code authorities for acoustical design purposes in building construction. The greater the IIC rating number, the lower the impact sound transmission through the flooring assembly.

Sound Transmission Loss Test & Classification (STC) testing is designed to measure the sound insulation properties of building materials used between a floor to ceiling partition separating two rooms. Sound is introduced in the source room via speakers and measurements are made of the noise reduction between the source room and the receiving room. The STC provides a single number that can be used for comparing the sound insulating properties of various materials used in general building design. The higher the rating the greater the sound insulating properties.

Sound Authorities

Please see the chart below for the list of test result requirements for various building authorities.

Table B

| Standard | Authority | IIC Requirements | STC Requirements |
|----------|-----------------------------------------|------------------|------------------|
| BOCA | The BOCA National Building Code | 45 | 45 |
| UBC | Uniform Building Code | 50 | 50 |
| CABO | Council of American Building Officials | 45 | 45 |
| IBC | International Building Code | 59 | 50 |
| HUD | US Dept. of Housing & Urban Development | 52 | 52 |

Sound insulation is of great importance in many commercial markets. Current solutions include thicker gauge products or a sound deadening underlayment but are costly. The use of TUF STIK SPX™ costs no more than conventional adhesives saving builders and owners approximately \$1 to \$3 a square foot.



Difference of Test Results

Table A contains data from Shannon Specialty Floors (SSF) and AM (Adhesive Manufacturer) tests. The test methods differ slightly with the principal difference being the floor/ceiling assemblies. The AM tests used a 6" concrete slab while the SSF testing was conducted through 1.5" of gypsum concrete, $\frac{3}{4}$ " of OSB board, and 1" of gypsum board. Please note, ASTM protocol does not specify the type of floor/ceiling assembly for this testing because building designs vary widely. Therefore, we will be quoting the AM test results and will distribute those results when required.



SHANNON SPECIALTY
FLOORS