

KnollTextiles offers a range of fabric options appropriate for wrapped acoustical panel applications. We test all panel fabrics in our line, as well as several of our wallcovering and upholstery fabrics to determine their acoustical properties.

ASTM C423 is the industry recognized test for evaluating the sound absorption of a building material. The test uses a reverberation chamber and measures the rate of decay of sound waves. We use this test to assess which fabrics in our line are appropriate for acoustical panel use.

The test report lists the Noise Reduction Coefficient (NRC), which is calculated from the absorption data of 4 frequencies (18 or more are collected during the span of the test). The NRC number is always between “1” and “0”. If the material achieves a “1”, it is said to have perfect absorption. If the material receives a “0”, it is said to be perfectly reflective. At KnollTextiles, we ensure that our panel fabrics do not interfere with the panel’s ability to absorb sound, so we report the NRC difference.

In order to find the NRC difference, the ASTM C423 test is conducted twice—once with the panel alone and secondly with a fabric covered panel. The Noise Reduction Coefficient is then calculated by averaging those 4 frequencies. By subtracting the NRC result of the fabric covered panel from the NRC result of the panel alone, we are able to define the NRC difference. In other words, we report the change in absorbency that was detected between these specific frequencies. The closer this number is to “0”—whether positive or negative—the less interference the fabric caused in the panel’s ability to absorb. Depending on the level of noise control that the acoustician is looking to attain, it may be necessary to review the full report showing the absorption at all frequencies tested. Please contact your KnollTextiles Customer Service Representative for the full test report.

The fabrics listed below have been tested and, based on the NRC difference, are considered to be acoustically neutral. The range deemed acoustically neutral is between -0.25 and 0.25.

KnollTextiles Acoustical Fabrics

Akita	Element	Logic	Transfer
Alibi	Film Reel	Mainframe	Trophy
Amalfi	Flow	Match Point	Tryst
Amplify	Foil Rap	Mezzo	Twilight
Annex	Foundation	Micro	Ultrasuede
Antares	Gem II	Narnia Poly	Utmost
Bandwidth	Giza Poly	Nematic II	Versatility
Bauhaus Block	Glam	North Star	Zenith
Beacon	Glaze	Palladium	
Bistro	Glisten	Petra	
Bocce	Growth Spurt	Pivot	
Bollywood (unbacked)	Guild	Photon II	
Boundary	Hard Rock	Prague	
Broadcloth II	Heavy Metal	Ransom	
Cable Twist	Hint	Reflect	
Candela	Hourglass	Relay	
Capital	Illume	Repertoire	
Cats Cradle	Improv	Ricochet	
Chance	Innuendo	Slumber	
Circle Line	Interknit	Spellbound	
Circuit	Intermission Unbacked	Symbolic Details	
Cosma	Knoll Felt	Tailor Made II	