

NONWOVEN SOUND ABSORPTION MATERIALS

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ABSTRACT

Noise is a major cause of industrial fatigue, irritation, reduced productivity and occupational accidents. Continuous exposure of 90dB or above is dangerous to hearing. Installation of noise absorbent barriers (made from wood and textiles) between the source and the subjects is one of the main methods of noise control. Measurement techniques used to characterize the sound absorptive properties of a material are reverberant field method, impedance tube method and steady state method. Noise absorbent textile materials especially nonwoven structures or recycled materials have low production costs, low specific gravity and are aesthetically appealing. Acoustic insulation and absorption properties of nonwoven fabrics depend on fiber geometry and fiber arrangement within the fabric structure.

KEYWORDS: Noise Absorption, Textile industry, Noise control.