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(54) **A gypsum/cellulosic fiber acoustical tile composition**

Eine Gips/Zellulosefaser enthaltende Zusammensetzung für Schallziegel

Une composition pour dalle acoustique en plâtre et fibre cellulosique

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**AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL  
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**(54) A gypsum/cellulosic fiber acoustical tile composition**

**(57)** An acoustical tile composition based on a gypsum/cellulosic fiber composition which can replace all or a portion of the mineral wool normally present in acoustical ceiling tiles. The gypsum/cellulosic fiber composition is combined with a lightweight aggregate material and a binder to form a composition which is used in a water-felting process to manufacture acoustical ceiling tiles and panels. The preferred source of the cellulosic fiber is a composite gypsum/cellulose fiber material

which is prepared by mixing the gypsum and cellulosic fiber material with sufficient water to form a dilute slurry which is then heated under pressure to calcine the gypsum, converting it to an alpha calcium sulfate hemihydrate. The resulting composite material comprises cellulosic fibers physically interlocked with calcium sulfate crystals. Another source of both gypsum and cellulosic fibers is waste (scrap) gypsum wallboard. Expanded perlite is the preferred lightweight aggregate material.

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