

Title (en)
METHOD OF FORMING ADHESIVES MIXTURES AND BALLISTIC COMPOSITES UTILIZING THE SAME

Title (de)
VERFAHREN ZUR HERSTELLUNG VON HAFTMISCHUNGEN UND BALLISTISCHE VERBUNDSTOFFE DAMIT

Title (fr)
PROCEDE D'ELABORATION DE MELANGES ADHESIFS ET COMPOSITES BALISTIQUES LES UTILISANT

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Application
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Abstract (en)
[origin: WO2006049651A2] The invention relates to adhesive compositions used in composite laminar structures to improve ballistic resistance, which limits the penetration of a bullet from a gun. The composite laminar structures includes a plurality of ballistic substrate layers, e.g., polyaramid or olefinic plies, and an impact absorbing adhesive resin or adhesive composition of the invention. An adhesive composition includes an impact absorbing adhesion resin having a melt index ranging from 1 to 100; an olefinic acrylate or methacrylate copolymer having a melt index between about 0.5 and about 100 or of an olefinic vinyl acetate copolymer having a melt index between about 0.5 and 350; an acid rosin having an acid number ranging from about 20 to 200; a high melt oxidized wax being having a melting point between about 80 to 120 °C; and a low melt wax having a melting point between about 55 to 90 °C. The invention also describes body armor, shielding and helmets that may be made from the composite laminar structures of the invention.

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