

Title (en)
COMPOSITES AND METHODS OF MANUFACTURING THE SAME.

Title (de)
Verbundwerkstoffe und Verfahren zu ihrer Herstellung.

Title (fr)
COMPOSITES ET PROCEDES DE PREPARATION.

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Application
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Abstract (en)
[origin: WO9409972A2] Composites incorporating unidirectional discontinuous reinforcing fibers are formed in one process by carding a mixture including discontinuous fibers of a thermoplastic material and discontinuous fibers of a reinforcing material to form a web, collecting the web into a sliver and fusing one or more slivers to form a substantially continuous thermoplastic phase surrounding the unidirectional discontinuous fibers of the reinforcing material. In another process, the composites are formed by coextruding the thermoplastic material around substantially continuous fibers of the reinforcing material, severing the extrudate transversely to the fiber direction to form a multiplicity of pieces, juxtaposing the pieces so that the fibers in each piece extend substantially codirectionally with one another, fusing the pieces to form a unitary mass, and shearing the mass in a direction parallel to the fiber direction to redistribute the fibers in the mass. The composites in accordance with these processes have physical properties which generally are greater with respect to loads in the fiber direction than with respect to loads in directions transverse to the fiber direction.

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