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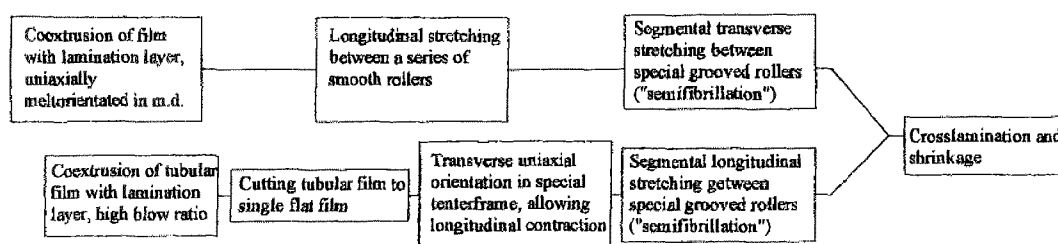
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(54) Title: **CROSSLAMINATE OF ORIENTED FILMS AND METHODS AND APPARATUS FOR MANUFACTURING SAME**



(57) Abstract: A crosslaminated is formed from two oriented plies of thermoplastic polymer material, arranged so that their orientation directions cross one another, the plies being heatsealed together. Each ply is senm-fibrillated, that is consist of linear thin regions of biaxiailly oriented material and thicker linear bosses between the thinner regions. The webs are sealed primarily through bonds formed at the intersection of the bosses (thicker regions). The array of bosses has a division less than 2 mm. The laminate has improved aesthetic and strength properties. A method for forming the crosslaminated involves segmental stretching of the material to form the thinner regions, and apparatus comprising intermeshing grooved stretching rollers having sharp-edged crests is described.