

Title (en)
Method for continuous mercerising, and apparatus that employs such method.

Title (de)
Verfahren und Vorrichtung zum kontinuierlichen Mercerisieren.

Title (fr)
Procédé et appareillage de mercerisage en continu.

Publication
EP 0489191 A1 19920610 (EN)

Application
EP 90123294 A 19901205

Priority
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Abstract (en)
Method and apparatus for continuous mercerising which are suitable to carry out mercerising treatment of a plurality of yarns being unwound continuously and parallel to one another from one (12) or more (112-212) feeder beams, the plurality of yarns (11) undergoing in succession the following operational steps: a pre-wash by immersion in at least one vessel (14), but preferably in three vessels (14), containing a bath consisting of hot water with an addition of surface active agents, impregnation in caustic soda by immersion in at least one vessel (14), but preferably in two vessels (14), containing a bath of heated caustic soda, stabilisation with a control of shrinkage of the yarns (11) in a stabilisation and tensioning chamber (23), in which the yarns (11) are placed partly in contact with a caustic soda bath, tensioning and drawing in the stabilisation and tensioning chamber (23), in which the yarns (11) are again placed partly in contact with a caustic soda bath, neutralisation by a hot wash, the neutralisation comprising: a first stage of washing by immersion in at least one vessel (14), but preferably in two groups each of two vessels (14), containing a bath of hot water; a second stage of actual neutralisation by immersion in at least one one vessel (14), but preferably in two vessels (14), containing an acid bath; and a third stage of rinsing by immersion in at least one vessel (14), but preferably in three vessels (14), containing a bath of hot water, and drying in an oven (30) by a circulation of hot air, the yarns (11) leaving the drying process being wound on one or preferably on a plurality of take-up beams (33). Continuous mercerising apparatus which is suitable to carry out mercerising treatment of a plurality of yarns being unwound continuously and parallel to each other from one (12) or more (112-212) feeder beams, the apparatus carrying out the above method and comprising the following operational assemblies positioned in succession: a pre-wash assembly (13) consisting of at least one pre-wash vessel (14), but preferably of three equal vessels (14) positioned one after another, an impregnation assembly (21) consisting of at least one impregnation vessel (14), but preferably of two equal vessels (14) positioned one after another, a stabilisation and tensioning assembly (22) consisting of a stabilisation and tensioning chamber (23) comprising assemblies of upper rolls (24) and lower rolls (25) to control shrinkage and drawing of the yarns (11), a wash assembly (26) consisting of at least one wash vessel (14), but preferably of two groups each consisting of two equal vessels (14) positioned one after another, a neutralisation assembly (27) consisting of at least one neutralisation vessel (14), but preferably of two equal vessels (14) positioned one after another, a rinse assembly (28) consisting of at least one rinse vessel (14), but preferably of three equal vessels (14) positioned one after another, a drier assembly (29) consisting of an oven (30) employing hot air, and a yarn (11) take-up assembly consisting preferably of a plurality of beams (33) containing aliquot parts of the number of yarns contained in the feed (12-112-212) to the apparatus (10). <IMAGE>

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