

Title (en)  
Papermaking fabric

Title (de)  
Papiermaschinensieb

Title (fr)  
Habillage de machine à papier

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Application  
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Abstract (en)

The forming web of a paper-making machine, comprises an upper fabric layer, whose external side forms a paper face, a lower fabric layer, whose external side forms a machine side of the paper making fabric, binder yarns extending itself in longitudinal thread direction, and lower cross-connected threads. The binder yarns connect the upper and the lower fabric layer with one another. The upper fabric layer is formed by the binder yarns and with the interwoven upper cross-connected threads extending itself transverse to the binder yarns. The lower fabric layer is formed by the binder yarns. The forming web of a paper-making machine, comprises an upper fabric layer, whose external side forms a paper face, a lower fabric layer, whose external side forms a machine side of the paper making fabric, binder yarns extending itself in longitudinal thread direction, and lower cross-connected threads. The binder yarns connect the upper and the lower fabric layer with one another. The upper fabric layer is formed by the binder yarns and with the interwoven upper cross-connected threads extending itself transverse to the binder yarns. The lower fabric layer is formed by the binder yarns and with the interwoven lower cross-linked threads extending itself transverse to the binder yarns. Each of the lower cross-connected threads is held respectively by the binder yarns. Each binder yarn on the external side of the lower fabric layer constantly crosses the respective lower cross-connected threads. The binder yarns holding the respective lower cross-connected threads are separated by a binder yarn not holding the lower cross-connected threads from one another, in which the lower cross-connected threads on the outer side of the lower fabric layer constantly cross the not holding binder yarns. With lower cross-connected threads, a same number of not holding binder yarns is arranged between the binder yarns holding the lower cross-connected thread. For each lower cross-connected thread, binder yarns not holding the cross-linked threads are arranged between successive binder yarns holding the respective lower cross-connected threads. The number of the binder yarns not holding the cross-connected threads is six. The upper fabric layer is formed by the interwoven of the binder yarns with the upper cross-linked threads. The weaving pattern of the upper fabric layer is itself repeated upwardly. The binder yarns are arranged in groups and the binder yarns of each group are alternated itself in sections when interwoven with the upper cross-connected threads in longitudinal thread direction. Each group of binder yarns forms an upper longitudinal thread progressing with binder yarns elevations and -lowering, which is repeated itself after the length of the upper repeats in the longitudinal direction. The binder yarns weaving the respective upper cross-connected threads of a group on the outer side of the upper fabric layer constantly cross an upper cross-connected thread. A binder yarn lowering is formed, in which the binder yarns weaving the respective upper cross-connected threads of a group between upper and lower fabric layer constantly cross an upper cross-connected threads. The binder yarn elevation and binder yarn lowering of the weaving pattern of the upper fabric layer are irregularly arranged in the upper repeat. The irregular structure of the upper weaving pattern is formed, in which in the upper repeat two longitudinal thread progressions are optionally produced in such a manner that one of the two longitudinal thread processing is produced not by the displacement of all of its binder yarn elevation or lowering around a same number of upper cross-connected threads in longitudinal thread direction. The irregular structure of the upper weaving pattern is formed by free textile processing, modification of a textile basic weave, derivative of a textile basic weave and extension of a textile basic weave basic weave. The ratio of upper cross-connected threads to lower cross-connected threads is 2:1, 3:2 or 4:3. The upper fabric layer comprises  $\geq 14$  upper cross-connected threads. The lower fabric layer comprises  $\geq 7$  lower cross-connected threads. The binder yarns in seven groups are arranged to every two-binder yarn. The total repeats of the paper-making screen comprise  $\geq 24$ ,  $\geq 26$ ,  $\geq 32$  or  $\geq 48$  more longitudinal threads and/or upper and lower cross-connected threads. The binder yarns are chaining threads and the cross-connected threads are filling yarns and vice versa.

Abstract (de)

Die Erfindung betrifft ein Papiermaschinensieb, mit einer oberen Gewebelage deren Außenseite eine Papierseite und mit einer unteren Gewebelage deren Außenseite eine Maschinenseite des Papiermaschinensiebs bildet und mit sich in Längsfadenrichtung erstreckenden Bindefäden, welche die obere und die untere Gewebelage miteinander verbinden, - wobei die obere Gewebelage zumindest durch die Bindefäden und mit diesen verwoben sich quer erstreckenden oberen Querfäden gebildet wird, - wobei die untere Gewebelage zumindest durch die Bindefäden und mit diesen verwoben sich quer erstreckenden unteren Querfäden gebildet wird, - wobei jeder untere Querfaden jeweils durch mehrere Bindefäden gehalten wird, indem jeder dieser Bindefäden auf der Außenseite der unteren Gewebelage laufend den jeweiligen unteren Querfaden kreuzt, und - wobei zumindest manche der einen jeweiligen unteren Querfaden haltenden Bindefäden durch zumindest einen den unteren Querfaden nicht haltenden Bindefaden voneinander beabstandet sind. Es sind mehrere untere Querfäden vorgesehen, bei denen jeweils zwischen aufeinander folgenden, den unteren Querfaden jeweils haltenden Bindefäden immer eine gleiche Anzahl von nicht haltenden Bindefäden angeordnet sind.

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