

Title (en)

Conical cross-wound bobbin and method for winding the yarn package of a conical cross-wound bobbin

Title (de)

Konische Kreuzspule und Verfahren zur Bildung des Wickelkörpers einer konischen Kreuzspule

Title (fr)

Bobine conique à enroulement croisé et procédé pour la formation du paquet de fil d'une telle bobine conique

Publication

EP 1321412 B1 20060405 (DE)

Application

EP 02025845 A 20021119

Priority

DE 10162778 A 20011220

Abstract (en)

[origin: EP1321412A2] The process creates a crossing angle between 15-28 degrees in the middle zone (30), which is produced with this angle across more than 50% of the total winding width. The crossing angle in the middle section is at least 8 degrees smaller than the maximum angle in the edge zones (28,29). Yarn tension is reduced as the package diameter increases. <??>An Independent claim is made for the resulting crosswound package.

IPC 8 full level

B65H 55/04 (2006.01); **B65H 54/38** (2006.01)

CPC (source: EP US)

B65H 54/385 (2013.01 - EP US); **B65H 55/04** (2013.01 - EP US); **B65H 2701/31** (2013.01 - EP US)

Cited by

EP2530039A3

Designated contracting state (EPC)

CH DE IT LI

DOCDB simple family (publication)

EP 1321412 A2 20030625; **EP 1321412 A3 20030917**; **EP 1321412 B1 20060405**; CN 1269711 C 20060816; CN 1426947 A 20030702; DE 10162778 A1 20030703; DE 50206302 D1 20060518; US 2003116673 A1 20030626; US 6886771 B2 20050503

DOCDB simple family (application)

EP 02025845 A 20021119; CN 02157599 A 20021220; DE 10162778 A 20011220; DE 50206302 T 20021119; US 32513102 A 20021220