

Title (en)  
Process for manufacturing cotton warp yarns with an "inverse denim " effect.

Title (de)  
Verfahren zur Herstellung von Baumwollkettgarnen mit "Invers Denim" Effekt

Title (fr)  
Procédé pour fabriquer des fils de chaîne présentant un effet denim inversé.

Publication  
**EP 1498541 A3 20060125 (DE)**

Application  
**EP 04015733 A 20040703**

Priority  
DE 10332164 A 20030715

Abstract (en)  
[origin: EP1498541A2] Production of cotton warp yarns with an 'inverse denim' effect involves: (i) thoroughly dyeing using indigo (I) in an indigo dyeing apparatus at 30-90[deg]C and a (I) concentration of 5-500 g/l in a single dip; and (ii) selectively decolorizing the (I) at the surface of the yarn in a subsequent bleaching step. An independent claim is included for textile articles containing yarns dyed by the process.

IPC 8 full level  
**D06B 3/06** (2006.01); **D06P 5/15** (2006.01); **D03D 15/00** (2006.01); **D03D 15/02** (2006.01); **D06L 3/02** (2006.01); **D06L 4/30** (2017.01); **D06M 10/00** (2006.01); **D06P 1/00** (2006.01); **D06P 1/22** (2006.01); **D06P 1/44** (2006.01); **D06P 3/60** (2006.01); **D06P 5/13** (2006.01)

CPC (source: EP KR US)  
**D06B 1/00** (2013.01 - KR); **D06P 1/22** (2013.01 - EP US); **D06P 1/228** (2013.01 - KR); **D06P 5/153** (2013.01 - EP US); **D06P 5/155** (2013.01 - EP US); **D06P 5/156** (2013.01 - EP US)

Citation (search report)  
• [Y] US 4342565 A 19820803 - TEAGUE EDWARD W, et al  
• [DY] EP 1097184 B1 20020327 - DYSTAR TEXTILFARBEN GMBH & CO [DE]  
• [A] US 4283194 A 19810811 - TEAGUE EDWARD W, et al  
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• [Y] DATABASE WPI Section Ch Week 199349, Derwent World Patents Index; Class A87, AN 1993-393629, XP002355938

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Designated contracting state (EPC)  
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DOCDB simple family (publication)  
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DOCDB simple family (application)  
**EP 04015733 A 20040703**; BR PI0402763 A 20040713; CN 200410063657 A 20040713; DE 10332164 A 20030715; JP 2004207806 A 20040714; KR 20040054674 A 20040714; MX PA04006794 A 20040713; TW 93120871 A 20040713; US 88920904 A 20040726