

Title (en)

THERMALLY BONDED FIBRE PRODUCTS WITH BICOMPONENT FIBRES AS BONDING FIBRES

Title (de)

THERMISCH GEBUNDENE FASERERZEUGNISSE MIT BIKOMPONENTFASERN ALS HAFTFASERN

Title (fr)

PRODUITS DE FIBRES LIES THERMIQUEMENT AVEC DES FIBRES A DEUX COMPOSANTS COMME FIBRES DE LIAISON

Publication

EP 0496734 B1 19990107 (EN)

Application

EP 90913042 A 19900807

Priority

US 9004410 W 19900807

Abstract (en)

[origin: WO9202669A1] A method is disclosed for making thermoplastic bicomponent fibers by contacting under thermally bonding conditions (a) a first component being at least one high performance thermoplastic polymer, such as PET, PBT, nylon or the like, and (b) a second component which is olefinic and which forms at least a portion of the fiber's surface characterized by (b) including at least one grafted linear ethylene polymer having pendant succinic acid or succinic anhydride groups; whereby the fiber is dyeable. The bicomponent fibers made by this process can be in a variety of shapes (e.g., round, oval, trilobal, flat, or hollow) and configurations (e.g., symmetrical sheath/core or side-by-side or asymmetrical crescent/moon). The succinic acid or succinic anhydride groups are provided by grafting, respectively, maleic acid or maleic anhydride onto the linear ethylene polymers especially by a process wherein the grafting is done in a twin-screw, co-rotating extruder with the maleic acid or maleic anhydride being injected into a pressured zone of the extruder. The acid containing grafted linear ethylene polymer or polymer blends are dyeable in contradistinction to ungrafted linear ethylene polymers.

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IPC 8 full level

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CPC (source: EP)

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Citation (examination)

- US 4684576 A 19870804 - TABOR RICKY L [US], et al
- WO 9001504 A1 19900222 - DOW CHEMICAL CO [US]

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US7927530B2; WO2019190705A1

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WO 9202669 A1 19920220; AU 6278190 A 19920302; AU 645264 B2 19940113; BR 9007727 A 19920721; DE 69032885 D1 19990218; DE 69032885 T2 19990527; EP 0496734 A1 19920805; EP 0496734 A4 19930616; EP 0496734 B1 19990107; ES 2127717 T3 19990501; JP 2920567 B2 19990719; JP H05500394 A 19930128; KR 0154969 B1 19981201; KR 927003891 A 19921218

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