

Title (en)
Manufacturing method of geogrid

Title (de)
Herstellungsverfahren für in Erdbau anwendbarem Gitter

Title (fr)
Méthode pour la fabrication de géogrilles

Publication
EP 0989216 A1 20000329 (EN)

Application
EP 98118203 A 19980925

Priority
EP 98118203 A 19980925

Abstract (en)
An improved method for manufacturing polymeric geogrids is disclosed. The method includes the steps of: (a) co-spinning at least one high-melting point filament yarn with a plurality of low-melting point staple fibers to form a composite yarn, the low-melting point staple fiber has a melting point that is at least 10 SIMILAR 20 DEG C lower than the melting point of the high-melting point filament yarn; (b) weaving the composite yarn to form a net-structured fabrics; (c) heating the net-structured fabrics to cause the low-melting point staple fiber to melt and wrap about the high-melting point filament yarn; and (d) cooling the net-structured to form a geogrid. One of the main advantages of this process is that it does not require the coating step (with molten PVC or asphalt), as do the prior art processes. Thus, the geogrids can be manufactured in a more cost-effective and environmentally compatible manner. The geogrid of the present invention also exhibits substantially increased junction strength as well as retaining a greater portion of its ultimate strength at elongation.

IPC 1-7
D03D 9/00; **D03D 15/00**

IPC 8 full level
D03D 9/00 (2006.01); **D03D 15/00** (2006.01)

CPC (source: EP US)
D03D 9/00 (2013.01 - EP); **D03D 15/267** (2021.01 - EP); **D03D 15/283** (2021.01 - EP US); **D03D 15/292** (2021.01 - EP US); **D03D 15/47** (2021.01 - EP US); **D03D 15/587** (2021.01 - EP US); **D10B 2101/06** (2013.01 - EP); **D10B 2101/12** (2013.01 - EP); **D10B 2321/021** (2013.01 - EP); **D10B 2321/022** (2013.01 - EP); **D10B 2321/06** (2013.01 - EP); **D10B 2331/021** (2013.01 - EP); **D10B 2331/04** (2013.01 - EP); **D10B 2401/063** (2013.01 - EP); **D10B 2505/204** (2013.01 - EP)

Citation (search report)
• [AD] EP 0773311 A1 19970514 - HOECHST CELANESE CORP [US]
• [A] DE 4243465 A1 19930701 - BASF AG [DE]
• [A] DE 29504780 U1 19950720 - HOECHST TREVIRA GMBH & CO KG [DE]
• [A] US 4960349 A 19901002 - WILLIBEY GARY L [US], et al

Cited by
CN110651075A; WO2018177377A1

Designated contracting state (EPC)
AT CH DE FR GB IT LI NL

DOCDB simple family (publication)
EP 0989216 A1 20000329; **EP 0989216 B1 20041201**; AT E283938 T1 20041215; DE 69827943 D1 20050105; DE 69827943 T2 20051222

DOCDB simple family (application)
EP 98118203 A 19980925; AT 98118203 T 19980925; DE 69827943 T 19980925