

Title (en)
Bulked continuous filament having a three-sided exterior cross-section and a convex six-sided central void and yarn and carpet produced therefrom

Title (de)
Bauschige Hohlfilamente mit dreiseitigem Querschnitt und daraus hergestellte Garne und Teppiche

Title (fr)
Filaments continus volumineux et creux à trois faces, fils et tapis produits à partir de ceux-ci

Publication
EP 1541725 A1 20050615 (EN)

Application
EP 04257186 A 20041119

Priority
US 52387003 P 20031119

Abstract (en)
A bulked continuous filament with a three-sided exterior configuration is characterized in that each side has a smoothly curved contour extending between a first and a second rounded tip with an inwardly extending depressed region being disposed adjacent to each tip. Generally, the filament has an exterior modification ratio in the range from about 1.4 to about 2.0, and a tip ratio in the range from about 2.0 to about 4.0. The filament generally delta-shaped void with three major apices extending centrally and axially therethrough. Each side of the void is convexly shaped and formed from a pair of facets that meet to define minor apices. The void is oriented such that each major apex extends toward the approximate midpoint of one side of the exterior of the filament and each minor apex extends toward a tip of an exterior side. The distance (RM) from the geometric center of the void to each major apex and the distance (Rm) from the geometric center of the void to each minor apex defines an apex ratio (RM/Rm) in the range from about 1.0 to about 1.55. The void occupies from about four percent (4%) to about twenty-five percent (25%) of the cross sectional area of the filament. <IMAGE>

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IPC 8 full level
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Citation (search report)
• [A] EP 0516119 A2 19921202 - BASF CORP [US]
• [A] WO 9413869 A1 19940623 - BASF CORP [US], et al
• [A] GB 1099258 A 19680117 - INVENTA AG
• [A] WO 9939029 A1 19990805 - DU PONT [US] & US 6048615 A 20000411 - LIN PERRY HAN-CHENG [US]
• [A] PATENT ABSTRACTS OF JAPAN vol. 018, no. 082 (C - 1164) 10 February 1994 (1994-02-10)

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