

Title (en)

RECYCLABLE PLASTIC STRUCTURAL ARTICLES AND METHOD OF MANUFACTURE

Title (de)

WIEDERAUFBEREITBARE KUNSTSTOFFSTRUKTURARTIKEL UND VERFAHREN ZUR HERSTELLUNG

Title (fr)

ARTICLES STRUCTURAUX EN MATIÈRE PLASTIQUE RECYCLABLE ET PROCÉDÉ DE FABRICATION

Publication

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Application

**EP 13769879 A 20130328**

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- US 201261616985 P 20120328
- US 201261616948 P 20120328
- US 201213463682 A 20120503
- US 201213463705 A 20120503
- US 201213463700 A 20120503
- US 201313840827 A 20130315
- US 2013034312 W 20130328

Abstract (en)

[origin: WO2013148977A1] An in-situ molded foam core structural plastic article having an outer shell with an interior cavity filled with expandable polymer beads which when expanded substantially fill the interior cavity forming a thermal bond with the shell. The bead and shell are of a similar plastic composition enabling the articles to be reground and recycled. Various articles are disclosed including structural panels, and automotive seat, load floor, interior panel, bumper and running board components. An apparatus for forming the articles and an associated method of manufacture are also disclosed.

IPC 8 full level

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Citation (search report)

- [XAY] EP 1987934 A2 20081105 - JSP CORP [JP]
- [XAY] EP 0583542 A1 19940223 - ARON KASEI KK [JP], et al
- [Y] US 2001035658 A1 20011101 - ANDERSON JEFFREY A [US], et al
- [Y] US 2008018161 A1 20080124 - EVANS JONATHAN A [US]
- [A] US 6607680 B1 20030819 - MOITZHEIM JUERGEN [DE]
- [A] JP 2010046920 A 20100304 - JSP CORP
- [XI] WO 2008121754 A1 20081009 - DOW GLOBAL TECHNOLOGIES INC [US], et al
- See references of WO 2013148977A1

Designated contracting state (EPC)

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