

Title (en)  
EXPANDABLE VINYL AROMATIC POLYMERS

Title (de)  
DEHNBARE AROMATISCHE VINYLPOLYMERE

Title (fr)  
POLYMÈRES AROMATIQUES DE VINYLE EXPANSIBLES

Publication  
**EP 2630186 A1 20130828 (EN)**

Application  
**EP 11775933 A 20111018**

Priority  
• EP 10187932 A 20101018  
• EP 2011068165 W 20111018  
• EP 11775933 A 20111018

Abstract (en)  
[origin: WO2012052423A1] The present invention is an expandable vinyl aromatic polymer which comprises: a ) a matrix of a vinyl aromatic polymer, b ) 1-10% by weight calculated with respect to the polymer (a), of an expanding agent englobed in the polymeric matrix, c ) 0.1 to 5% by weight calculated with respect to the polymer (a), of PiB (polyisobutene), homogeneously distributed in the polymeric matrix, d ) 0-20% by weight, calculated with respect to the polymer (a), of one or more fillers, other than PiB, homogeneously distributed in the polymeric matrix, Wherein the proportion of PiB is adjusted to increase the Melt Flow Index (MFI) from an initial index to a final index such as the 10% compression strength of the foam made with said expandable vinyl aromatic polymer of the final index is essentially the same or higher than the foam made with said expandable vinyl aromatic polymer of the initial index. The expandable vinyl aromatic polymer of the invention is produced in the form of beads or granules. In an embodiment the expandable vinyl aromatic polymer comprises carbon black in a proportion sufficient for the foamed material obtained from the expandable vinyl aromatic polymer to have a thermal conductivity  $\gamma$  of about 34 mW/m<sup>2</sup>K or lower.

IPC 8 full level  
**C08J 9/18** (2006.01)

CPC (source: EP US)  
**C08J 9/0061** (2013.01 - EP US); **C08J 9/0066** (2013.01 - EP US); **C08J 9/16** (2013.01 - EP US); **E04B 1/76** (2013.01 - US); **C08J 2203/14** (2013.01 - EP US); **C08J 2325/04** (2013.01 - EP US); **C08J 2423/20** (2013.01 - EP US)

Citation (search report)  
See references of WO 2012052423A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2012052423 A1 20120426**; BR 112013008987 A2 20160705; CN 103261298 A 20130821; CN 103261298 B 20140716; EA 022941 B1 20160331; EA 201370095 A1 20130830; EP 2630186 A1 20130828; US 2013320253 A1 20131205

DOCDB simple family (application)  
**EP 2011068165 W 20111018**; BR 112013008987 A 20111018; CN 201180060937 A 20111018; EA 201370095 A 20111018; EP 11775933 A 20111018; US 201113879831 A 20111018