

Title (en)

FOAM STRUCTURE WITH AN INORGANIC BLOWING AGENT

Title (de)

SCHAUMSTOFFKONSTRUKTION MIT ANORGANISCHEM TREIBMITTEL

Title (fr)

STRUCTURE EN MOUSSE A GONFLANT INORGANIQUE

Publication

EP 1730221 A1 20061213 (EN)

Application

EP 05729813 A 20050401

Priority

- GB 2005001297 W 20050401
- GB 0407463 A 20040401

Abstract (en)

[origin: WO2005095501A1] A melt polymer material for afoam structure, e.g. insulation board, comprises 80% to 98% by weight of a styrenic polymer, preferably polystyrene; 1% to 10% by weight of a low molecular weight random styrene butadiene copolymer resin; and 1% to 10% by weight of an inorganic blowing agent, preferably carbon dioxide. The low molecular weight random styrene butadiene copolymer resin comprises 80% to 95% by weight styrene and 5% to 20% by weight butadiene; has a weight average molecular weight of 100,000 to 140,000; and a molecular weight distribution (MWD) of 2.0 to 8.0. A process for making the foam structure involves heating the styrenic polymer and mixing the random styrene butadiene copolymer resin and the blowing agent into the styrenic polymer, and then molding the resultant mixture. The foam structure generally is closed-cell; has an average cell size of 300 microns (0.3 millimeters); a density between 20 g/l and 45 g/ml; and if insulation board, measures 1 meter wide up to 100 millimeters thick.

IPC 8 full level

C08J 9/00 (2006.01); **C08J 9/12** (2006.01)

CPC (source: EP)

C08J 9/0061 (2013.01); **C08J 9/122** (2013.01); **C08J 9/125** (2013.01); **C08J 2201/03** (2013.01); **C08J 2203/10** (2013.01); **C08J 2203/12** (2013.01); **C08J 2205/052** (2013.01); **C08J 2325/06** (2013.01); **C08J 2425/00** (2013.01)

Citation (search report)

See references of WO 2005095501A1

Cited by

WO2011042405A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005095501 A1 20051013; EP 1730221 A1 20061213; GB 0407463 D0 20040505

DOCDB simple family (application)

GB 2005001297 W 20050401; EP 05729813 A 20050401; GB 0407463 A 20040401