

Title (en)
Shoe insole laminate.

Title (de)
Laminierte Einlegesohle.

Title (fr)
Semelle intérieure laminée.

Publication
EP 0452576 A1 19911023 (EN)

Application
EP 90304153 A 19900418

Priority
EP 90304153 A 19900418

Abstract (en)
A shoe insole laminate includes at least one substrate film (11, 50, 60, 61, 70) having at least one layer of gas envelopes (10, 20, 30, 40) formed on the substrate film (11, 50, 60, 61, 70) at intervals and gas circulating passages (13) between the gas envelopes (12, 21, 31, 41). Each of the gas envelopes (12, 21, 31, 41) has a wall made of a pliable plastic material. The gas envelopes (12, 21, 31, 41) deform upon the application of pressure on the shoe insole laminate for shock-absorbing purposes. <IMAGE>

IPC 1-7
A43B 17/03

IPC 8 full level
A43B 17/03 (2006.01)

CPC (source: EP)
A43B 1/0009 (2013.01); **A43B 17/03** (2013.01)

Citation (search report)
• [X] US 4112599 A 19780912 - KRIPPELZ JACOB
• [X] DE 2428357 B1 19750227 - FRITZSCHE HELMUT
• [X] DE 7633023 U1 19770203
• [X] CH 604587 A5 19780915 - GISIGER LUSA ARMIN
• [Y] DE 595976 C 19340425 - WILHELM GROSSMANN
• [A] DE 3130046 A1 19830303 - SVENSKA TOBAKS AB [SE]
• [A] DE 416723 C 19250723 - RUDOLF THEEL, et al
• [A] US 2237190 A 19410401 - ANGUS MCLEOD
• [A] US 4914836 A 19900410 - HOROVITZ ZVI [US]

Cited by
WO9823180A1; US5584130A; WO9716991A3; WO2007027587A1; WO0170064A3; US8060964B2; US8667710B2; US7513066B2;
WO2023059217A1

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0452576 A1 19911023

DOCDB simple family (application)
EP 90304153 A 19900418