

Title (en)

Sandwich-type footwear stiffening element of rigid or at least semi-rigid behaviour, usable as part of the sole unit or insole

Title (de)

Starre oder halbstarre Sandwichversteifung für Schuhwerk, verwendbar für die Sohle oder Brandsohle

Title (fr)

Raiderisseur du type sandwich rigide ou semi-rigide, utilisable comme partie de la semelle ou de la première de montage

Publication

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Application

EP 98124514 A 19981222

Priority

IT MI980076 A 19980116

Abstract (en)

For a lower part (4) of footwear (2, 3), an element of rigid or semi-rigid behaviour suitable for use as the sole unit or as an insole or internal foot support for the footwear, this latter comprising a vamp (7) associated with the lower portion (4) of the footwear. Said element (1) comprises at least three mutually associated layer portions (13, 14, 15) defining a sandwich structure (1A); the outer portions (13, 14) having greater rigidity than the inner portion (15), these portions being stably joined together to form a single body (1A). <IMAGE>

IPC 1-7

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IPC 8 full level

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Cited by

FR2823078A1; FR2823076A1; EP1210883A1; FR2817126A1; EP2842445A3; JP2004530510A; DE102019117621A1; ITTV20130108A1;
IT201700049184A1; EP1249184A1; WO03002042A1; WO2023056381A1; US6938362B2; US10758005B2; US11633013B2; US12022910B2;
US10842224B2; US11730232B2; US12075880B2; US11344078B2; US11819084B2; US10448704B2; US11344081B2; US11357286B2;
US11659888B2; US11659887B2; US10349700B2; US10441027B2; US10548368B2; US10743606B2; US10743607B2; US10798992B2;
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JP H11244003 A 19990914; KR 19990067925 A 19990825; NO 990195 D0 19990115; NO 990195 L 19990719; SK 999 A3 20000313;
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EP 98124514 A 19981222; AU 1210999 A 19990115; BR 9900055 A 19990114; CA 2257443 A 19990114; CN 99100953 A 19990115;
CZ 13699 A 19990115; IL 12774298 A 19981225; IT MI980076 A 19980116; JP 520799 A 19990112; KR 19990001067 A 19990115;
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