

Title (en)
LUMINOUS ROAD MARKING WITH LIGHT EMITTING DIODES

Title (de)
FAHRBAHN-MARKIERUNGSLEUCHTE IN LED-TECHNIK

Title (fr)
MARQUAGE LUMINEUX SUR LA CHAUSSEE EN TECHNIQUE LED

Publication
EP 1432874 A1 20040630 (DE)

Application
EP 02774150 A 20020926

Priority
• AT 0200282 W 20020926
• AT 15222001 A 20010926

Abstract (en)
[origin: WO03027397A1] The invention concerns luminous marking means to be switched on and off, with light emitting diodes, embedded in the road, having particularly low resistance, while at the same time having a high axial luminous intensity. The light from a LED chip (2) is focused, through rounded ends (4), in a directly installed glass body (6). The rounded ends (4) are of such small dimension that the divergence of the light beam, conditioned by the size of the LED chip, already directly generates jointly with the diffuse light components the required light distribution. The glass body (6) guides the light coming from the protected inside part of the lamp, obliquely upwards, where it exits, through an output surface (7) inclined at about 45 DEG, in the form of a substantially horizontal beam. The input and output surfaces (5 and 7) of the glass body (6) have a height corresponding to the diameter of the round ends (4), the length of the glass body (6) corresponding to the angle of divergence of the light beam. The output surface (7) has a curvature with a focal point located in the region of the input surface (5). The device is protected by a housing (9) wherein the glass body (6) is hermetically bonded with a light-absorbent adhesive (10).

IPC 1-7
E01F 9/06; E01F 9/00

IPC 8 full level
E01F 9/20 (2016.01); **E01F 9/559** (2016.01)

CPC (source: EP)
E01F 9/20 (2016.02); **E01F 9/559** (2016.02)

Citation (search report)
See references of WO 03027397A1

Cited by
KR102354817B1; US11869358B2; US10921492B2; US11940593B2; US11971519B2; US11977206B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)
WO 03027397 A1 20030403; AT 413560 B 20060315; AT A15222001 A 20050815; DE 50202251 D1 20050317; EP 1432874 A1 20040630; EP 1432874 B1 20050209

DOCDB simple family (application)
AT 0200282 W 20020926; AT 15222001 A 20010926; DE 50202251 T 20020926; EP 02774150 A 20020926