Title (en)

DIFFUSER DISK FOR LCD APPLICATIONS, METHOD FOR THE PRODUCTION AND USE THEREOF

Title (de)

STREUSCHEIBE FÜR LCD-ANWENDUNGEN, VERFAHREN ZU DEREN HERSTELLUNG UND VERWENDUNG

Title (fr)

DIFFUSEUR POUR APPLICATIONS LCD, PROCEDE DE PRODUCTION CORRESPONDANT ET UTILISATION

Publication

EP 1660935 A1 20060531 (DE)

Application

EP 04732288 A 20040512

Priority

- EP 2004005058 W 20040512
- DE 10336130 A 20030804

Abstract (en)

[origin: DE10336130A1] A scattering screen for LCD applications comprises at least one light scattering polymethylmethacrylate layer comprising a polymethylmethacrylate matrix and spherical particles (A) and spherical particles (B) having different average particle sizes with at least one particle type having a refractive index that is different to that of polymethylmethacrylate matrix. A scattering screen for LCD applications comprises at least one light scattering polymethylmethacrylate layer comprising a polymethylmethacrylate matrix and 0.5-59.5 wt.% of spherical scattering particles (A) having an average particle size of 0.1-40 mu m and a refractive index that is different to that of polymethylmethacrylate matrix by 0.02-2 and 0.5-59.5 wt.% of spherical scattering particles (B) having an average particle size of 10-150 mu m and a refractive index that is different to that of polymethylmethacrylate matrix by 0-0.2 wherby the total concentration of (A) and (B) is 1-60 wt.% (with respect to the light scattering polymethylmethacrylate layer) and the particles (A) and (B) are of different average particle diameter and the screen (I) has a transmission value of 20-70% and scattering level of greater than 0.3 whereby ratio of the square of the average surface roughness of the polymethylmethacrylate layer R z to the cube of the particle size of (B) R 2> z/DPB3 is 0.0002-0.1300 mu m -> 1>. An independent claim is included for a process for the production of the screen (I) by extrusion of a composition comprising polymethylmethacrylate, particles (A) and particles (B).

IPC 1-7

G02F 1/1335; G02B 5/02; G03B 21/62

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CPC (source: EP KR US)

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Citation (search report)

See references of WO 2005022245A1

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DE 10336130 A1 20050224; AU 2004269463 A1 20050310; AU 2004269463 B2 20100520; BR PI0413302 A 20061010; CA 2534538 A1 20050310; CN 100541283 C 20090916; CN 1829936 A 20060906; EP 1660935 A1 20060531; HK 1094044 A1 20070316; JP 2007501425 A 20070125; KR 20060056365 A 20060524; MX PA06001067 A 20060411; NZ 545549 A 20100129; RU 2006106618 A 20060827; RU 2359298 C2 20090620; TW 200523645 A 20050716; US 2006240200 A1 20061026; US 7629041 B2 20091208; WO 2005022245 A1 20050310; ZA 200601021 B 20071128

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