

Title (en)

OBJECT COMPRISING A SURFACE THAT IS EASY TO CLEAN, AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

GEGENSTAND MIT LEICHT REINIGBARER OBERFLÄCHE UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

OBJET A SURFACE FACILEMENT NETTOYABLE ET PROCEDE POUR SA PRODUCTION

Publication

EP 1656329 A1 20060517 (DE)

Application

EP 04797516 A 20041102

Priority

- EP 2004012370 W 20041102
- DE 10351467 A 20031104

Abstract (en)

[origin: WO2005044749A2] The invention relates to objects, in particular, made from glass or glass ceramic, comprising a double coating to facilitate cleaning thereof. According to the invention, a coating which meets the test conditions developed for interior oven glazing may be achieved, by means of a double coating with an outer layer, comprising components reacting with free OH groups and an inner inorganic metal oxide layer, whereby the outer hydrophobic layer is applied on a very reactive inner metal oxide layer, dried at moderate temperatures of up to 100 DEG C and chemically anchored thereto by condensation reactions and the double layer system then burned onto the surfaces of the object at temperatures above 50 DEG C. Said method is carried out with the following steps: application of an inner inorganic sol-gel layer, directly to the surfaces of the object with conventional techniques in a first step, drying the inner sol-gel layer at a temperature between ambient and 100 DEG C, application of an outer hydrophobic, preferably fluoro compound to the reactive inner sol-gel layer with a conventional method in a second step and burning the double layer system onto the surfaces of the object.

IPC 1-7

C03C 17/42; C04B 41/89; C23C 28/00

IPC 8 full level

C03C 17/00 (2006.01); **C03C 17/245** (2006.01); **C03C 17/34** (2006.01); **C03C 17/42** (2006.01); **C04B 41/52** (2006.01); **C04B 41/89** (2006.01); **C23C 16/40** (2006.01); **C23C 16/453** (2006.01); **C23C 26/00** (2006.01); **C23C 28/00** (2006.01)

CPC (source: EP US)

C03C 17/3405 (2013.01 - EP US); **C03C 17/3417** (2013.01 - EP US); **C04B 41/009** (2013.01 - EP US); **C04B 41/52** (2013.01 - EP US); **C04B 41/89** (2013.01 - EP US); **C23C 26/00** (2013.01 - EP US); **C03C 2217/76** (2013.01 - EP US); **C04B 2111/2069** (2013.01 - EP US)

Citation (search report)

See references of WO 2005044748A1

Citation (examination)

US 6620861 B1 20030916 - NAKATUKA TOSHIYUKI [JP], et al

Cited by

DE102007010955A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 2005044749 A2 20050519; WO 2005044749 A3 20050922; DE 10351467 A1 20050616; DE 10351467 B4 20110707; EP 1656329 A1 20060517; EP 1685075 A2 20060802; EP 1685075 B1 20170426; JP 2007509738 A 20070419; US 2007065680 A1 20070322; WO 2005044748 A1 20050519

DOCDB simple family (application)

EP 2004012428 W 20041103; DE 10351467 A 20031104; EP 04797516 A 20041102; EP 04818120 A 20041103; EP 2004012370 W 20041102; JP 2006537234 A 20041102; US 57611904 A 20041102