

Title (en)  
LASER-INScribed AND LASER-WELDED SHAPED BODIES AND PRODUCTION THEREOF

Title (de)  
LASERBESCHRIFTETE UND LASERVERSCHWEIßTE FORMKÖRPER UND DEREN HERSTELLUNG

Title (fr)  
CORPS MOULÉS À MARQUAGE LASER ET SOUDÉS AU LASER ET LEUR FABRICATION

Publication  
**EP 4337453 A1 20240320 (DE)**

Application  
**EP 22728075 A 20220504**

Priority  
• EP 21173280 A 20210511  
• EP 2022062050 W 20220504

Abstract (en)  
[origin: WO2022238213A1] The present invention relates to shaped bodies comprising at least a first moulding and a second moulding, wherein the first moulding is at least partly transparent to NIR radiation, the second moulding absorbs NIR radiation in such a way that the first moulding and the second moulding are at least partly bonded to one another by laser transmission welding, wherein the first moulding has at least a subregion that is dark in colour and wherein at least a portion of the subregion has a light-coloured laser inscription, wherein the first moulding consists at least partly of a moulding compound comprising, based in each case on the total weight of the moulding compound, A) > 38.2% by weight to 99.98% by weight of a thermoplastic polymer or a mixture of thermoplastic polymers, B) 0.01% by weight to < 0.8% by weight of titanium dioxide particles having an average primary particle size in the range from 0.5 nm to 25 nm, C) 0.01% by weight to 1.0% by weight of one or more soluble dyes having an absorption in the NIR region that enables partial transparency for NIR radiation in the first moulding, and D) 0 to 60 percent by weight of further admixtures. The invention further relates to processes for producing the shaped body and to the use of a moulding compound as a moulding having a laser inscription in the production of a shaped body.

IPC 8 full level  
**B29C 65/16** (2006.01); **C08K 3/22** (2006.01); **C08K 5/00** (2006.01); **C08K 7/14** (2006.01)

CPC (source: EP KR)  
**B29C 65/1616** (2013.01 - EP KR); **B29C 65/1635** (2013.01 - EP KR); **B29C 65/1677** (2013.01 - EP KR); **B29C 66/71** (2013.01 - EP KR); **B29C 66/7212** (2013.01 - EP KR); **B29C 66/7332** (2013.01 - EP KR); **B29C 66/7392** (2013.01 - EP KR); **C08K 3/22** (2013.01 - EP KR); **C08K 5/0041** (2013.01 - EP KR); **C08K 5/005** (2013.01 - EP KR); **C08K 5/08** (2013.01 - KR); **C08K 5/3465** (2013.01 - KR); **C08K 7/14** (2013.01 - EP KR); **B29C 2791/009** (2013.01 - EP KR); **B29C 2795/002** (2013.01 - EP KR); **B29C 2795/007** (2013.01 - EP KR); **B29K 2995/0027** (2013.01 - EP KR); **C08K 5/08** (2013.01 - EP); **C08K 5/3465** (2013.01 - EP); **C08K 2003/2241** (2013.01 - EP KR); **C08K 2201/005** (2013.01 - EP KR)

C-Set (source: EP)  
1. **C08K 3/22 + C08L 67/02**  
2. **C08K 7/14 + C08L 67/02**  
3. **C08K 5/0041 + C08L 67/02**  
4. **C08K 5/005 + C08L 67/02**  
5. **B29C 66/71 + B29K 2077/00**  
6. **B29C 66/71 + B29K 2067/00**  
7. **B29C 66/71 + B29K 2067/006**  
8. **B29C 66/7212 + B29K 2309/08**

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**WO 2022238213 A1 20221117**; BR 112023023609 A2 20240312; CN 117320869 A 20231229; EP 4337453 A1 20240320; JP 2024521058 A 20240528; KR 20240006650 A 20240115

DOCDB simple family (application)  
**EP 2022062050 W 20220504**; BR 112023023609 A 20220504; CN 202280034349 A 20220504; EP 22728075 A 20220504; JP 2023570111 A 20220504; KR 20237042571 A 20220504