

Title (en)

COMPOSITION CAPABLE OF FREE RADICAL POLYMERIZATION RESULTING IN SHOCKPROOF ORGANIC GLASS MATERIALS

Title (de)

RADIKALPOLYMERISIERBARE ZUSAMMENSETZUNG UND SCHLAGWIDERSTANDFAEHIGE ORGANISCHEGLASE DARAUS

Title (fr)

COMPOSITION POLYMERISABLE PAR VOIE RADICALE CONDUISANT A DES VERRES ORGANIQUES RESISTANTS AU CHOC

Publication

**EP 1453874 A1 20040908 (FR)**

Application

**EP 02799758 A 20021126**

Priority

- FR 0204050 W 20021126
- FR 0115273 A 20011126

Abstract (en)

[origin: FR2832717A1] The invention concerns a composition capable of free radical polymerization comprising: a first constituent A including at least an oligomer bearing at least two functions capable of free radical polymerization and whereof the homopolymer has a glass transition temperature (T<sub>g</sub>) less than 50 DEG C, said constituent being capable of resulting by polymerization in a (co)polymer having a glass transition temperature (T<sub>g</sub>) not higher than 50 DEG C, preferably not higher than 0 DEG C and more preferably still ranging between 50 DEG C and 10 DEG C, said oligomer representing more than 15 %, preferably less than 20 % of the total weight of polymerisable monomers present in the composition; and a second constituent B including at least a (meth)acrylic monomer bearing at least a H bond promoter group, said (meth)acrylic monomer representing at least 15 % of the total weight of the polymerisable monomers and oligomers present in the composition when said monomer is a methacrylic monomer and at least 35 % of the total weight of polymerisable monomers and oligomers present in the composition when said monomer is an acrylic monomer.

[origin: FR2832717A1] Radically polymerizable composition comprises: (A) more than 15 wt.% of an at least bifunctional oligomer capable of forming a homopolymer with a glass transition temperature (T<sub>g</sub>) below 50 deg C and a copolymer with a T<sub>g</sub> of 50 deg C or less; and (B) at least 15 wt.% of a hydrogen-bonding (meth)acrylic monomer. An Independent claim is also included for a product resulting from the thermal and/or photochemical polymerization of a composition as above.

IPC 1-7

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IPC 8 full level

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