the applicant does not necessarily require preparing the support by using an adhesion primer.

Finally, the quality of the imprints produced with this novel anti-sticking layer is far better, as shown by the amount of defects generated on the imprint, compared to the use of known anti-sticking layers.
The manufacture of the novel anti-sticking layer discovered by the applicant is moreover easier and more economical to produce.

[Summary of the invention]

[005] The present disclosure relates to an anti-sticking layer used in a novel process for transfer imprinting, this anti-sticking layer comprising a homopolymer or a copolymer having at least one covalent bond that generates free radicals when the anti-sticking layer is activated thermally, by organic or inorganic redox, photochemically, by shearing, by plasma, or else under the influence of ionizing radiation, said homopolymer or copolymer having a surface energy of greater than 5 mN/m, an elastic modulus E' of greater than 1000 MPa at 25°C and a weight-average molecular weight of greater than 500 g/mol.

[005a] An aspect of the present disclosure provides a transfer imprinting process including by the following steps:
- deposition of an anti-sticking layer on a template, treated or not treated beforehand by an adhesion primer (surface activation plasma), this anti-sticking layer comprising a homopolymer or a copolymer having at least one covalent bond that generates free radicals when the molecule is activated thermally, by organic or inorganic redox, photochemically, by shearing, by plasma, or else under the

influence of ionizing radiation, said homopolymer or copolymer having a surface energy of greater than 5 mN/m, an elastic modulus E' of greater than 1000 MPa at 25°C or at the usage temperature, and a weight-average molecular weight of greater than 500 g/mol,

- activation of the covalent bond that generates free radicals thermally, by organic or inorganic redox, photochemically, by shearing, by plasma, or else under the influence of ionizing radiation, in order to form a film with a thickness of less than 50 nm on the template,
- deposition or lamination of a polymer resin of a thickness ranging from 100 nm to 5 mm, whether or not deposited beforehand on a support having a Young's modulus of greater than 1 GPa,
- polymerization or cooling of the resin serving as imprint,
- removing the imprint.

[Detailed description]

[006] The homopolymers or copolymers used as anti-sticking layer in the process of the invention may be obtained by any route, among which mention may be made of polycondensation, ring-opening polymerization or anionic, cationic or radical polymerization, it being possible for the latter to be controlled or uncontrolled. When the copolymers are prepared by radical polymerization or telomerization,