Nanostructure Die, Embossing Roll, Device and Method for Continuous Embossing of Nanostructures

Abstract

The invention relates to a nanostructure die with a concavely curved nanostructured die surface (7f) for seamless embossing of at least one peripheral ring of a jacket surface of an embossing roll in the step-and-repeat process and an embossing roll for continuous embossing of nanostructures with an embossing layer (13) which has been applied on a body of revolution (5) with a jacket surface (13o) with at least one peripheral ring (15) which is made seamless at least in the peripheral direction and which is embossed in the step-and-repeat process.

Furthermore the invention relates to a method and a device for producing such an embossing roll (16) for continuous embossing of nanostructures as well as a method for producing such a nanostructure die (1) and a method for producing an embossing substrate (18).

Figure 1