

Title (en)
MOLDING THERMOSETTING POLYMERS ONTO SUBSTRATES

Title (de)
GIESSEN VON THERMOHÄRTENDEN POLYMEREN AUF TRÄGERMATERIAL

Title (fr)
MOULAGE DE POLYMERES THERMODURCISSANTS SUR DES SUBSTRATS

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Application
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- US 91821597 A 19970825
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- US 91830397 A 19970825
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- US 92021497 A 19970825

Abstract (en)
[origin: WO9910156A1] The apparatus and method of this invention provide a system for forming three dimensional bodies or patterns on porous materials (340) wherein a portion of the body is firmly bonded into the material. This in effect, makes the three dimensional elastomeric body substantially an integral part of the porous material (340). The process of utilizing a heated base plate or platen (330), heated mold (420) and maintaining such elements under pressure over a predetermined time period allows the polymeric material to cure and firmly bond within the porous material (340) and to form the three dimensional body. The temperature of the platen (330) is usually kept above the temperature of the mold (420). A nozzle (620) adjacent the mold (420) is maintained at a temperature substantially below the temperature of the mold (420) to prevent curing of the polymeric material in the nozzle (620). The cooling (535) and vacuum mechanisms allow continuous coupling of the nozzle (620) to the mold (420).

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Citation (search report)

- [AX] US 4481160 A 19841106 - BREE CHARLES E [US]
- [X] WO 9324306 A1 19931209 - CREME ART CORP [US], et al
- [A] US 5149547 A 19920922 - GILL ANTONY [US]
- [A] US 4100010 A 19780711 - WAUGH ROBERT E
- [A] EP 0787853 A1 19970806 - NAMBA PRESS KOGYO KK [JP]
- [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 438 (M - 1309) 11 September 1992 (1992-09-11) & DATABASE WPI Section Ch Week 199227, Derwent World Patents Index; Class A32, AN 1992-223783, XP002360450
- [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 08 30 August 1996 (1996-08-30) & DATABASE WPI Section Ch Week 199624, Derwent World Patents Index; Class A32, AN 1996-234605, XP002360451
- [A] PATENT ABSTRACTS OF JAPAN vol. 015, no. 057 (M - 1080) 12 February 1991 (1991-02-12) & DATABASE WPI Section Ch Week 199103, Derwent World Patents Index; Class A32, AN 1991-018077, XP002360452
- [A] PATENT ABSTRACTS OF JAPAN vol. 011, no. 123 (M - 581) 17 April 1987 (1987-04-17)
- See references of WO 9910156A1

Cited by
CN102285012A; CN102555122A

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