

Title (en)

Process for fabricating laminated structures of improved structural integrity.

Title (de)

Herstellungsverfahren zum Schichtaufbau von verbesserter struktureller Integrität.

Title (fr)

Procédé de manufacture des structures laminées d'intégrité structural améliorée.

Publication

EP 0231790 A2 19870812 (EN)

Application

EP 87100520 A 19870116

Priority

US 82433586 A 19860130

Abstract (en)

This patent application discloses a process for fabricating printhead structures for use in thermal ink jet printers. In this process, a thin film resistor substrate (10) is bonded to a flat orifice plate (12) by means of an adhesive polymer (14) to which heat and pressure are applied for a predetermined time. This pressure is applied to the outer surfaces of the orifice plate (12) and substrate (10) respectively and hydrostatically transmitted to the adhesive polymer (14) in such a manner as to apply pressure uniformly across the surface of the polymer (14). This application of uniform pressure is accomplished in spite of contours and other surface irregularities that may exist on either the materials being bonded or the heat staker members which apply heat and pressure to these members. In a preferred embodiment of the invention, the above hydrostatic transmission of pressure is accomplished by means of a "waterbed" sandwich structure (16) in which a liquifiable material (22) is enclosed between layers (18,20) of flexible foil material.

IPC 1-7

B32B 31/20; **B41J 3/04**; **H01L 49/02**

IPC 8 full level

B32B 43/00 (2006.01); **B29C 43/32** (2006.01); **B29C 65/02** (2006.01); **B32B 37/10** (2006.01); **B41J 2/16** (2006.01); **B29L 9/00** (2006.01)

CPC (source: EP)

B41J 2/1601 (2013.01); **B41J 2/1623** (2013.01)

Cited by

EP0389738A3; EP0521517A3; US5436650A

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0231790 A2 19870812; **EP 0231790 A3 19890614**; JP H0794165 B2 19951011; JP S62181148 A 19870808

DOCDB simple family (application)

EP 87100520 A 19870116; JP 1959887 A 19870129