

Title (en)

Metal plated plastic base intaglio printing cylinders and plates, process and apparatus.

Title (de)

Metallüberzogene Kunststoff-Intaglio-Druckzylinder und -Druckplatten, Verfahren und Apparat.

Title (fr)

Planches pour impression intaglio, à base de polymères, en forme de cylindres ou de plaques revêtus de métal, procédé et appareil.

Publication

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Application

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Priority

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Abstract (en)

By providing a molded or extruded plastic base cylinder or plate with a surface coating of an etchable metal, a low cost printing media is achieved for use in intaglio or gravure printing. The plastic base cylinder may be machined to a low tolerance diameter before being substantially uniformly plated with an etchable metal such as copper or nickel about its entire outer peripheral surface, thereby assuring uniform balance and concentricity. The plated surface is then engraved or etched with the information to be printed, resulting in a low cost printing cylinder for use in intaglio or rotogravure printing. In one embodiment, the cylinder incorporates a substantially uniform diameter shafting bore along its central axis in order to provide for mounting the cylinder on a shaft or other fixture, while another embodiment provides for accurately disposed and engaging lugs which rotationally drive the cylinder. In this way, uniform pressure resistance and complete peripheral surface concentricity and balance is achieved during the printing, engraving, plating, and polishing processes. Preferably, the plastic base comprises polypropylene, which may incorporate various fillers or resins for improving the plastic's physical characteristics.

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Citation (search report)

- DE 1917115 A1 19691023 - UNION CARBIDE CORP
- GB 1290413 A 19720927 - STAUFFER CHEMICAL CO [US]
- DE 2433713 A1 19760129 - BLUNDELL JOHN MARK
- DE 1471701 A1 19690220 - BASF AG
- FR 1591240 A 19700427
- US 1906738 A 19330502 - CARROLL FRANCIS J
- US 3820460 A 19740628 - MC ELREATH C
- BE 498872 A
- US 3598050 A 19710810 - THOMPSON JOHN R
- FR 1495785 A 19670922 - GROOVE & WELTER
- DE 2433612 A1 19760129 - BLUNDELL JOHN MARK
- FR 2338805 A1 19770819 - DOW CHEMICAL CO [US]
- US 3544319 A 19701201 - DIEBOLD ADOLF, et al
- US 4136615 A 19790130 - POZNIAK NORMAN J
- IBM TECHNICAL DISCLOSURE BULLETIN vol. 12, no. 7, December 1963 New York, US H.K. JOHNSTON et al. "Direct or reverse printing plate and method of making and using the same", page 1022

Cited by

FR2654676A1; GB2198085A; GB2198085B; EP0623466A3; US5468568A; EP0384104A1; AU622809B2; WO0059727A1; WO03047873A3; WO2015162299A1; US10391759B2

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