

**CPC****COOPERATIVE PATENT CLASSIFICATION****B41C****PROCESSES FOR THE MANUFACTURE OR REPRODUCTION OF PRINTING SURFACES** ( photomechanical processes for producing printingsurfaces [G03F](#) ; photoelectrical processes for producing printing surfaces [G03G](#) )**Guidance heading:****B41C 1/00****Forme preparation****B41C 1/003**

- . { the relief or intaglio pattern being obtained by imagewise deposition of a liquid, e.g. by an ink jet }

**B41C 1/006**

- . { the relief or intaglio pattern being obtained by abrasive means, e.g. by sandblasting }

**B41C 1/02**

- . Engraving ; Heads therefor ( recording on record carriers, heads therefor [G11B](#) )

**B41C 1/025**

- .. { characterised by means for the liquid etching of substrates for the manufacturing of relief or intaglio printing forms, already provided with resist pattern }

**NOTE**

Attention is drawn to the title of class [B41](#) and to subclass [H04N](#) , in particular to the Notes following the title of that subclass and to the group [H04N 1/00](#)

**B41C 1/04**

- .. using heads controlled by an electric information signal

**B41C 1/045**

- ... Mechanical engraving heads

**B41C 1/05**

- ... Heat-generating engraving heads, e.g. laser beam, electron beam

**NOTE**

The fabrication of lithographic forms, screen printing forms or stencils with a laser beam or another high energetic radiation beam is not considered as involving an engraving. The preparation of such forms is covered by [B41C 1/10](#) and [B41C 1/14](#)

**B41C 1/055**

- . Thermographic processes for producing printing formes { e.g. with a thermal print head } ( [B41C 1/02](#) takes precedence; { fabrication of relief or intaglio plates by ablative recording with a laser beam [B41C 1/05](#) ; production of lithographic forms [B41C 1/10](#) ; producing of screen printing forms or stencils [B41C 1/14](#) } )

**B41C 1/06**

- . Transferring ( [B41C 1/10](#) , [B41C 1/18](#) take precedence )

**B41C 1/08**

- . by embossing, e.g. with a typewriter ( typewriters adapted therefor [B41J 3/38](#) )

**B41C 1/10**

- . for lithographic printing ; Master sheets for transferring a lithographic image to the forme { chemical or electrical pretreatment [B41N 3/03](#) } ( neutralising or similar differentiation treatments of lithographic printing formes [B41N 3/08](#) )

**B41C 1/1008**

- .. { by removal or destruction of lithographic material on the lithographic support, e.g. by laser or spark ablation; by the use of materials rendered soluble or insoluble by

- heat exposure, e.g. by heat produced from a light to heat transforming system; by on the press exposure or on the press development, e.g. by the fountain of photolithographic materials }
- B41C 1/1016 . . . { characterised by structural details, e.g. protective layers, backcoat layers, several imaging layers ( [B41N 3/036](#) takes precedence ) }
  - B41C 1/1025 . . . { using materials comprising a polymeric matrix containing a polymeric particulate material, e.g. hydrophobic heat coalescing particles }
  - B41C 1/1033 . . . { by laser or spark ablation }
  - B41C 1/1041 . . { by modification of the lithographic properties without removal or addition of material, e.g. by the mere generation of a lithographic pattern }
  - B41C 1/105 . . { by electrocoagulation, by electro-adhesion or by electro-releasing of material, e.g. a liquid from a gel }
  - B41C 1/1058 . . { by providing a magnetic pattern, a ferroelectric pattern or a semiconductive pattern, e.g. by electrophotography }
  - B41C 1/1066 . . { by spraying with powders, by using a nozzle, e.g. an ink jet system, by fusing a previously coated powder, e.g. with a laser }
  - B41C 1/1075 . . { Mechanical aspects of on-press plate preparation ( [B41C 1/1008](#) to [B41C 1/1066](#) take precedence ) }
  - B41C 1/1083 . . { Mechanical aspects of off-press plate preparation ( [B41C 1/1008](#) to [B41C 1/1066](#) take precedence ) }
  - B41C 1/1091 . . { by physical transfer from a donor sheet having an uniform coating of lithographic material using thermal means as provided by a thermal head or a laser; by mechanical pressure, e.g. from a typewriter by electrical recording ribbon therefor }
- B41C 1/12 . Multicolour formes
- B41C 1/14 . for stencil-printing or silk-screen printing
  - B41C 1/141 . . { by cutting or perforation with mechanical means; Electrical spark cutting }
  - B41C 1/142 . . { using a galvanic or electroless metal deposition processing step }
  - B41C 1/144 . . { by perforation using a thermal head }
  - B41C 1/145 . . { by perforation using an energetic radiation beam, e.g. a laser }
  - B41C 1/147 . . { by imagewise deposition of a liquid, e.g. from an ink jet; Chemical perforation by the hardening or solubilizing of the ink impervious coating or sheet }
  - B41C 1/148 . . { by a traditional thermographic exposure using the heat- or light- absorbing properties of the pattern on the original, e.g. by using a flash }
- B41C 1/16 . Formes with areas rendered ink-resistant by covering with an amalgam ; Printing plates for amalgam printing
- B41C 1/18 . Curved printing formes or printing cylinders { ( [B41C 1/10](#) , [B41C 1/14](#) take precedence ) }
- B41C 1/182 . . { Sleeves; Endless belts }
  - B41C 1/184 . . { by transfer of the design to the cylinder, e.g. from a lithographic printing plate; by drawing the pattern on the cylinder; by direct cutting of the pattern on the cylinder }
  - B41C 1/186 . . { by casting }
  - B41C 1/188 . . { characterised by means for liquid etching of cylinders already provided with resist pattern }

## **B41C 3/00      Reproduction or duplicating of printing formes**

- B41C 3/02 . Stereotyping ( [casting stereotype plates B41D 3/00](#) )
- B41C 3/04 . to produce rubber printing blocks
- B41C 3/06 . to produce printing blocks from plastics
- B41C 3/08 . Electrotyping ; Application of backing layers thereon

**Guidance heading:**

**B41C 2201/00      Location, type or constituents of the non-imaging layers in lithographic printing formes**

- B41C 2201/02 . Cover layers ; Protective layers
- B41C 2201/04 . Intermediate layers
- B41C 2201/06 . Backcoats ; Back layers
- B41C 2201/10 . characterised by inorganic compounds, e.g. pigments
- B41C 2201/12 . characterised by non-macromolecular organic compounds
- B41C 2201/14 . characterised by macromolecular organic compounds, e.g. binder, adhesives

**Guidance heading:**

**B41C 2210/00      Preparation or type or constituents of the imaging layers, in relation to lithographic printing forme preparation**

- B41C 2210/02 . Positive working, i.e. the exposed (imaged) areas are removed
- B41C 2210/04 . Negative working, i.e. the non-exposed (non-imaged) areas are removed
- B41C 2210/06 . Developable by an alkaline solution
- B41C 2210/08 . Developable by water or the fountain solution
- B41C 2210/10 . Developable by an acidic solution
- B41C 2210/12 . Developable by an organic solution
- B41C 2210/14 . Multiple imaging layers
- B41C 2210/20 . characterised by inorganic additives, e.g. pigments, salts
- B41C 2210/22 . characterised by organic non-macromolecular additives, e.g. dyes, UV-absorbers, plasticisers

- B41C 2210/24
  - . characterised by a macromolecular compound or binder obtained by reactions involving carbon-to-carbon unsaturated bonds, e.g. acrylics, vinyl polymers
- B41C 2210/26
  - . characterised by a macromolecular compound or binder obtained by reactions not involving carbon-to-carbon unsaturated bonds
- B41C 2210/262
  - . . Phenolic condensation polymers, e.g. novolacs, resols
- B41C 2210/264
  - . . Polyesters ; Polycarbonates
- B41C 2210/266
  - . . Polyurethanes ; Polyureas