

# CPC COOPERATIVE PATENT CLASSIFICATION

## B41C PROCESSES FOR THE MANUFACTURE OR REPRODUCTION OF PRINTING SURFACES (photomechanical processes for producing printing surfaces [G03F](#); photoelectrical processes for producing printing surfaces [G03G](#))

### 1/00 Forme preparation

- 1/003 . {the relief or intaglio pattern being obtained by imagewise deposition of a liquid, e.g. by an ink jet}
- 1/006 . {the relief or intaglio pattern being obtained by abrasive means, e.g. by sandblasting}
- 1/02 . Engraving; Heads therefor ([recording on record carriers, heads therefor G11B](#))
- 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](#)

- 1/04 . . using heads controlled by an electric information signal
- 1/045 . . . Mechanical engraving heads
- 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](#)

- 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](#)})
- 1/06 . Transferring ([B41C 1/10](#), [B41C 1/18](#) take precedence)
- 1/08 . by embossing, e.g. with a typewriter ([typewriters adapted therefor B41J 3/38](#))
- 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](#))

- 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}

#### WARNING

Group [B41C 1/1008](#) is impacted by reclassification into group [B41C 2210/16](#).

Groups [B41C 1/1008](#) and [B41C 2210/16](#) should be considered in order to perform a complete search.

- 1/1016 . . . {characterised by structural details, e.g. protective layers, backcoat layers or several imaging layers}

#### WARNING

Group [B41C 1/1016](#) is impacted by reclassification into group [B41C 2210/16](#).

Groups [B41C 1/1016](#) and [B41C 2210/16](#) should be considered in order to perform a complete search.

- 1/1025 . . . {using materials comprising a polymeric matrix containing a polymeric particulate material, e.g. hydrophobic heat coalescing particles}
- 1/1033 . . . {by laser or spark ablation}
- 1/1041 . . {by modification of the lithographic properties without removal or addition of material, e.g. by the mere generation of a lithographic pattern}
- 1/105 . . {by electrocoagulation, by electro-adhesion or by electro-releasing of material, e.g. a liquid from a gel}
- 1/1058 . . {by providing a magnetic pattern, a ferroelectric pattern or a semiconductive pattern, e.g. by electrophotography}
- 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}
- 1/1075 . . {Mechanical aspects of on-press plate preparation ([B41C 1/1008](#) - [B41C 1/1066](#) take precedence)}
- 1/1083 . . {Mechanical aspects of off-press plate preparation ([B41C 1/1008](#) - [B41C 1/1066](#) take precedence)}
- 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}
- 1/12 . Multicolour formes
- 1/14 . for stencil-printing or silk-screen printing
- 1/141 . . {by cutting or perforation with mechanical means; Electrical spark cutting}

- 1/142 . . {using a galvanic or electroless metal deposition processing step}
- 1/144 . . {by perforation using a thermal head}
- 1/145 . . {by perforation using an energetic radiation beam, e.g. a laser}
- 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}
- 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}
- 1/16 . . Formes with areas rendered ink-resistant by covering with an amalgam; Printing plates for amalgam printing
- 1/18 . . Curved printing formes or printing cylinders ({[B41C 1/10](#), [B41C 1/14](#) take precedence})
- 1/182 . . {Sleeves; Endless belts}
- 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}
- 1/186 . . {by casting}
- 1/188 . . {characterised by means for liquid etching of cylinders already provided with resist pattern}
- 3/00** **Reproduction or duplicating of printing formes**
- 3/02 . . Stereotyping ([casting stereotype plates B41D 3/00](#))
- 3/04 . . to produce rubber printing blocks
- 3/06 . . to produce printing blocks from plastics
- 3/08 . . Electrotyping; Application of backing layers thereon

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

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

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

- 2210/02 . . Positive working, i.e. the exposed (imaged) areas are removed
- 2210/04 . . Negative working, i.e. the non-exposed (non-imaged) areas are removed
- 2210/06 . . Developable by an alkaline solution
- 2210/08 . . Developable by water or the fountain solution
- 2210/10 . . Developable by an acidic solution
- 2210/12 . . Developable by an organic solution
- 2210/14 . . Multiple imaging layers

- 2210/16 . . Waterless working, i.e. ink repelling exposed (imaged) or non-exposed (non-imaged) areas, not requiring fountain solution or water, e.g. dry lithography or driography

#### **WARNING**

Group [B41C 2210/16](#) is incomplete pending reclassification of documents from groups [B41C 1/1008](#) and [B41C 1/1016](#).

Groups [B41C 1/1008](#), [B41C 1/1016](#) and [B41C 2210/16](#) should be considered in order to perform a complete search.

- 2210/20 . . characterised by inorganic additives, e.g. pigments, salts
- 2210/22 . . characterised by organic non-macromolecular additives, e.g. dyes, UV-absorbers, plasticisers
- 2210/24 . . characterised by a macromolecular compound or binder obtained by reactions involving carbon-to-carbon unsaturated bonds, e.g. acrylics, vinyl polymers
- 2210/26 . . characterised by a macromolecular compound or binder obtained by reactions not involving carbon-to-carbon unsaturated bonds
- 2210/262 . . Phenolic condensation polymers, e.g. novolacs, resols
- 2210/264 . . Polyesters; Polycarbonates
- 2210/266 . . Polyurethanes; Polyureas