

## SECTION D — TEXTILES; PAPER

### D21 PAPER-MAKING; PRODUCTION OF CELLULOSE

#### D21C PRODUCTION OF CELLULOSE BY REMOVING NON-CELLULOSE SUBSTANCES FROM CELLULOSE-CONTAINING MATERIALS; REGENERATION OF PULPING LIQUORS; APPARATUS THEREFOR

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##### PRODUCTION OF CELLULOSE

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#### **1/00 Pretreatment of the finely-divided materials before digesting** (of waste paper D21C 5/02)

- 1/02 • with water or steam
- 1/04 • with acid reacting compounds
- 1/06 • with alkaline reacting compounds
- 1/08 • with oxygen-generating compounds
- 1/10 • Physical methods for facilitating impregnation

#### **3/00 Pulping cellulose-containing materials**

- 3/02 • with inorganic bases or alkaline reacting compounds, e.g. sulfate processes
- 3/04 • with acids, acid salts, or acid anhydrides
- 3/06 • • sulfur dioxide; sulfurous acid; bisulfites
- 3/08 • • • calcium bisulfite
- 3/10 • • • magnesium bisulfite
- 3/12 • • • sodium bisulfite
- 3/14 • • • ammonium bisulfite
- 3/16 • • nitrogen oxides; nitric acid
- 3/18 • with halogens or halogen-generating compounds (bleaching cellulose pulp D21C 9/12)
- 3/20 • with organic solvents
- 3/22 • Other features of pulping processes
- 3/24 • • Continuous processes
- 3/26 • • Multi-stage processes
- 3/28 • • Prevention of foam

#### **5/00 Other processes for obtaining cellulose, e.g. cooking cotton linters**

- 5/02 • Working-up waste paper (mechanical processes for working-up waste paper D21B 1/08, D21B 1/32)

#### **7/00 Digesters**

- 7/02 • Rotary digesters

- 7/04 • Linings
- 7/06 • Feeding devices
- 7/08 • Discharge devices
- 7/10 • Heating devices
- 7/12 • Devices for regulating or controlling
- 7/14 • Means for circulating the lye
- 7/16 • Safety devices

#### **9/00 After-treatment of cellulose pulp, e.g. of wood pulp, or cotton linters**

- 9/02 • Washing
- 9/04 • • in diffusers
- 9/06 • • in filters
- 9/08 • Removal of fats, resins, pitch, or waxes
- 9/10 • Bleaching
- 9/12 • • with halogens or halogen-containing compounds (D21C 9/16 takes precedence) **[4]**
- 9/14 • • • with ClO<sub>2</sub> or chlorites
- 9/147 • • with oxygen or its allotropic modifications (D21C 9/16 takes precedence) **[4]**
- 9/153 • • • with ozone **[4]**
- 9/16 • • with per compounds
- 9/18 • De-watering

#### **11/00 Regeneration of pulp liquors**

- 11/02 • of sulfite lye
- 11/04 • of alkali lye
- 11/06 • Treatment of pulp gases; Recovery of the heat content of the gases
- 11/08 • • Deodorisation
- 11/10 • Concentrating spent liquor by evaporation
- 11/12 • Combustion of pulp liquors
- 11/14 • • Wet combustion