

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

Note(s)

Processes using enzymes or micro-organisms in order to:

- i. liberate, separate or purify a pre-existing compound or composition, or to
- ii. treat textiles or clean solid surfaces of materials

are further classified in subclass C12S.

Subclass index

PRODUCTION OF CELLULOSE

Pretreatment of raw material.....	1/00
Pulping.....	3/00
Other processes.....	5/00
Digesters.....	7/00

AFTER-TREATMENT.....	9/00
REGENERATION OF PULP LIQUORS.....	11/00

1/00 Pretreatment of the finely-divided materials before digesting (of waste paper D21C 5/02)	7/04	• Linings
1/02 • with water or steam	7/06	• Feeding devices
1/04 • with acid reacting compounds	7/08	• Discharge devices
1/06 • with alkaline reacting compounds	7/10	• Heating devices
1/08 • with oxygen-generating compounds	7/12	• Devices for regulating or controlling
1/10 • Physical methods for facilitating impregnation	7/14	• Means for circulating the lye
	7/16	• Safety devices
3/00 Pulping cellulose-containing materials (digesters D21C 7/00)	9/00 After-treatment of cellulose pulp, e.g. of wood pulp, or cotton linters	
3/02 • with inorganic bases or alkaline reacting compounds, e.g. sulfate processes	9/02	• Washing
3/04 • with acids, acid salts, or acid anhydrides	9/04	• • in diffusers
3/06 • • sulfur dioxide; sulfurous acid; bisulfites	9/06	• • in filters
3/08 • • • calcium bisulfite	9/08	• Removal of fats, resins, pitch, or waxes
3/10 • • • magnesium bisulfite	9/10	• Bleaching
3/12 • • • sodium bisulfite	9/12	• • with halogens or halogen-containing compounds (D21C 9/16 takes precedence) [4]
3/14 • • • ammonium bisulfite	9/14	• • • with ClO ₂ or chlorites
3/16 • • nitrogen oxides; nitric acid	9/147	• • with oxygen or its allotropic modifications (D21C 9/16 takes precedence) [4]
3/18 • with halogens or halogen-generating compounds (bleaching cellulose pulp D21C 9/12)	9/153	• • • with ozone [4]
3/20 • with organic solvents	9/16	• • with per compounds
3/22 • Other features of pulping processes	9/18	• De-watering (de-watering in general F26B)
3/24 • • Continuous processes	11/00 Regeneration of pulp liquors	
3/26 • • Multi-stage processes	11/02	• of sulfite lye
3/28 • • Prevention of foam	11/04	• of alkali lye
5/00 Other processes for obtaining cellulose, e.g. cooking cotton linters (obtaining fibres for spinning D01C)	11/06	• Treatment of pulp gases; Recovery of the heat content of the gases
5/02 • Working-up waste paper (mechanical part D21B 1/08, D21B 1/32)	11/08	• • Deodorisation
	11/10	• Concentrating spent liquor by evaporation (evaporators B01D)
7/00 Digesters	11/12	• Combustion of pulp liquors
7/02 • Rotary digesters		

