

Universal Decimal Classification —

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UDC 676 Paper industry

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Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
Scope	1
Related subjects	1
Auxiliary signs and subdivisions	1
Typographic presentation	1
Schedule	
Special auxiliary subdivisions	
676.01 Generalities on pulp and paper production. Properties and testing	2
676.02 Manufacturing processes	4
676.03 Fibrous raw materials	8
676.04 Non-fibrous raw materials and additives. Process agents. Process water	10
676.05 Machinery and equipment for pulp, paper and board production	10
676.06 Products according to specific characteristics or properties	13
676.08 Waste liquor recovery. Regeneration of chemicals. Disposal of wastes. By-products. Effluent treatment	14
Principal divisions	
676.1 Pulp	15
676.2 Paper and board	15
676.8 Paper ware. Cardboard industry. Objects made from paper or cardboard	16
Alphabetical subject index	21
Related BSI publications	Inside back cover

Foreword

The English version of the Universal Decimal Classification (UDC) is being prepared and published as BS 1000 by the British Standards Institution (BSI) at the original joint request of the British Society for International Bibliography (BSIB) and the Association of Special Libraries and Information Bureaux (ASLIB), now amalgamated as Aslib. It has the approval of the Lake Placid Education Foundation, New York, proprietors of the Dewey Decimal Classification, from which the UDC derives. The English full edition of the UDC is authorized by the International Federation for Documentation (FID), PO Box 90402, 2509 LK, The Hague, Netherlands.

This section is part of the English full edition. It should be used in conjunction with the Abridged English Edition, BS 1000A, which refers to many other subjects of interest not listed in this schedule, and provides a conspectus of the whole scheme, together with an introduction to its use. For further practical information about the principles, application and utilization of the scheme, users should refer to BS 1000C.

This edition of BS 1000[676], which supersedes the 1971 edition, includes modifications authorized in “Extensions and Corrections to the UDC” (FID publication no. 248) up to and including Series 11, No. 2, dated April 1982. Subsequent issues of “Extensions and Corrections to the UDC” should be consulted to keep the schedule up to date. British Standards related to this Part of BS 1000 are listed on the inside back cover.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 48, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Scope

Under 676 is classed information about the production of pulps from wood and other substances, and the raw materials and machinery involved; also the production of various kinds of paper and board in sheet form. The manufacture of goods such as boxes, cards and stationery from paper and board is also included, although stationery as such is classed under 686.8.

Related subjects

621.315.614.6	Paper. Pressboard — Electrical insulating materials
621.798	Packaging and packaging equipment
630	Forestry
651.2	Office equipment. Office Machines. Office requisites
651.7	Correspondence. Communications. Reports
655	Graphic industries. Printing. Publishing. Book trade
661.728	Cellulose. Cellulose derivatives
686.8	Office equipment. Stationery. Writing, drawing and artists' accessories
691.14	Paper. Pulp — Building materials
741.023	Drawing materials in general — Arts and crafts
744.36	Drawing materials (for technical drawing)
745.54	Artistic paper work. Papercraft
76	Graphic arts
771.531.2	Paper — Sensitized photographic materials

Auxiliary signs and subdivisions

Full information about the common and special auxiliary signs and subdivisions (often abbreviated to “common and special auxiliaries”) will be found in BS 1000A and BS 1000C.

Colon sign of relation. For the classification of information for the public, as in abstracts and bibliographies, maximum use of colon combination rather than of common or special auxiliaries is recommended. The use of the colon sign of relation is preferable for multiple entry systems, as it will help prevent the concealment of information. This usually results in longer notation, however, and for information for more restricted use, the application of auxiliaries, where available, may be simpler and more convenient provided that there is an adequate alphabetical subject index.

Common auxiliaries. The common auxiliaries of language = . . ., form (0. . .), place (1/9), race and nationality (= . . .), time “. . .”, point of view .00. . ., materials –03. . . and persons –05. . . are applicable throughout the UDC. However, they should be used mainly to express concepts not otherwise provided for in the schedules.

Special auxiliaries. The –1/–8 special auxiliaries listed under 62 and the –9 special auxiliaries listed under 66 are applicable throughout the schedule.

The .0 special auxiliaries listed under 676 are applicable to 676.1/.2 except that .021 and .022 and their subdivisions are applicable only to 676.1. They may be detached and applied to any appropriate principal division where the result forms a meaningful combination, e.g.

676.27	Board
676.017.25	Grammage
676.27.017.25	Grammage of board

Series of .0 special auxiliaries are given under 676.81, 676.821, 676.822, 676.84 and 676.86. Each series is applicable only to subdivisions of the number under which it is given.

Typographic presentation

The arrow → means either “see” or “see also” according to the context. The symbol ≅ “subdivide as” means that the number preceding it may be subdivided in the same way as, and with meanings analogous to the subdivisions of, the number which follows it.

SCHEDULE

676 Pulp, paper and board industry

Special auxiliary subdivisions

676.0	GENERAL INFORMATION. PROPERTIES AND TESTING. PROCESSES. RAW MATERIALS. MACHINERY. WASTE. BY-PRODUCTS	676.013	Mill plant operation (generally) →658.2 Installation and plant. Buildings. Materials and equipment — Management
676.01	GENERALITIES ON PULP AND PAPER PRODUCTION. PROPERTIES AND TESTING	725.4	Industrial buildings. Factories, mills, works, yards, etc. — Architecture
.011	Process design. Development in processing. Flow charts. Theory etc.	.5	Mill design, planning and construction <i>Further particulars may be denoted by colon combination with the subdivisions of 69</i>
.012	Process supervision. Consumption. Throughput. Yield <i>Further particulars may be denoted by colon combination with the subdivisions of 658.5 or by the -5 special auxiliaries listed under 62</i>	.6	Power supply for plant <i>Further particulars may be denoted by the -8 special auxiliaries listed under 62, e.g.</i>
.1	Measurement. Process supervision. Instrumentation <i>Further particulars may be denoted by colon combination with the subdivisions of 53 or 681.2</i>	676.013.6-81	Steam power supply
.2	Consumption of raw and auxiliary materials	-82	Water power supply
.22	Consumption of raw materials	-83	Electric power supply
.23	Consumption of auxiliary materials	.014	Chemical constitution, composition. Chemical, molecular and structural properties and their testing, including fibre analysis <i>Specific methods may be denoted by colon combination with the subdivisions of 53, 54 or 620.1</i>
.24	Consumption per unit of production or plant	.2	Inorganic constituents (not additives) <i>Further particulars may be denoted by colon combination with the subdivisions of 543 or 546, e.g.</i>
.3	Heat consumption. Energy consumption	676.014.2:543.81	Moisture or water content. Volatile constituents
.32	Heat consumption	:543.822	Ash
.34	Heat balance (thermal, calorific balance) <i>Further particulars may be denoted by colon combination with the subdivisions of 662.614</i>	:546.13/16	Halogens
.37	Energy consumption	:546.17	Nitrogen
.4	Capacity. Throughput	:546.18	Phosphorus
.42	Capacity	:546.19	Arsenic
.43	Output with regard to quality of the product	:546.22	Sulphur
.44	Output or production potential of a unit of plant	:546.56	Copper
.45	Preparatory operation	:546.711	Manganese
.452	Length of preparatory operation	:546.72	Iron
.454	Period until commencement of reaction	:546.815	Lead
.46	Throughput	.3	Organic constituents
.462	Throughput rate	.32	Functional groups. Carboxyl content, carbonyl content etc.
.464	Throughput period	.33	Monosaccharides. Polysaccharides <i>Further particulars may be denoted by colon combination with the subdivisions of 547.45, e.g.</i>
.47	Length of discharge operation. Length of finishing operations	676.014.33:547.455	Monosaccharides
.48	Total production of plant over longer periods (e.g. annual production)	:547.458.8	Cellulose and other carbohydrates of cell membranes
.49	Other matters	:547.458.81	Cellulose
.492	Length of production periods. Life of reactor etc.	:547.458.87	Hemicelluloses
.5	Yield	:547.458.88	Pectin
.7	Profitability. Efficiency		
.77	Comparison with other processes		

676.014.34	Other organic constituents. Encrusting substances (not additives). Low-molecular accessory wood constituents <i>Further particulars may be denoted by colon combination with the subdivisions of 547, e.g.</i> 676.014.34:547.914 Balsams. Resins :547.915 Fats and oils :547.992.3 Lignin	676.017.274	Capillary structure. Pore size →676.017.6 Physical behaviour towards gases and liquids
.36	Reaction. Solubility. Chemical constants. Odour. Taste	.28	Surface properties <i>Further particulars may be denoted by colon combination with the subdivisions of 539, e.g.</i> 676.017.28:539.211 Smoothness. Roughness :539.6 Friction. Cohesion. Adhesion
.361	Bleachability. Degree of delignification, e.g. Roe chlorine number, Permanganate number, Kappa number	.282	Two-sidedness. Top-side. Wire-side
.362	Reaction. Acidity. Alkalinity	.3	Drainage properties. Fibre fractionation. Shive content. O-fibre content. Schopper Riegler number. Freeness number etc.
.363	Solubility	.4	Strength properties
.364	Odour. Taste	.42	Strength properties of the material as a whole <i>Further particulars may be denoted by colon combination with the subdivisions of 539, e.g.</i> 676.017.42:539.411 Resistance to compression :539.412 Resistance to tension :539.413 Resistance to flexion :539.414 Resistance to torsion :539.415 Resistance to shear :539.416 Resistance to folding, winding, curving :539.42 Breaking strength. Tensile strength :539.43 Resistance to repeated stresses. Fatigue :539.52 Ductility :539.53 Hardness :539.56 Brittleness :539.58 Compressibility
.365	Copper number etc.	.43	Strength properties of specific regions
.4	Additives etc.	.432	Bonding strength
.42	Inorganic additives. Loadings. Pigments. Coatings. Alum. Kaolin. Barytes	.2	Perpendicular to surface
.44	Organic additives. Size. Softening agents. Impregnating agents. Colours. Glycerol. Starch. Cellulose derivatives. Casein. Gelatin. Rosin. Varnish. Paraffin. Waxes. Plastics <i>For pigments → 676.014.42</i>	.4	Between plies
.8	Molecular, structural and morphological properties	.435	Resistance to picking and peel-off
.82	Molecular weight. Chain length. Degree of polymerization. Viscosity	.2	Resistance to picking
.84	Molecular structure. Molecular forces. Micellar and intermicellar structure. Crystallinity. Lattice structure <i>Further particulars may be denoted by colon combination, e.g.</i> 676.014.84:537.533.35 Electron microscopical investigation :548.73 X-ray investigation	.4	Resistance to peel-off
676.017	Physical and mechanical properties and their testing. Processing, serviceability and suitability properties →676.019 Faults. Defects. Degradation	.439	Other strength properties of specific regions
.2	General physical and mechanical properties and constants	.44	Strength properties under different conditions, e.g. wet strength
.22	Dimensions <i>Further particulars may be denoted by colon combination with the subdivisions of 531.7, e.g.</i> 676.017.22:531.71 Length. Thickness :531.72 Surface area :531.73 Volume <i>For specific product sizes → 676.06 note</i>	.5	Acoustic, optical, thermal, electrical and magnetic properties
.25	Weight. Substance (grammage). Specific gravity. Bulk <i>Further particulars may be denoted by colon combination with the subdivisions of 531.42 and 531.75</i>	.54	Acoustic properties <i>Further particulars may be denoted by colon combination with the subdivisions of 534, e.g.</i> 676.017.54:534.833 Damping of vibrations and sound
.27	Structure (of sheet)		
.272	Fibre orientation. Machine direction. Cross direction. Formation		

676.017.55	Optical properties	.79	Other physical processing, serviceability and suitability properties, e.g. feltability, adherability, stampability, nailability
	<i>Further particulars may be denoted by colon combination with the subdivisions of 535, e.g.</i>	.8	Chemical processing, serviceability and suitability properties, e.g. acetylation ability, nitration ability, chemical aggressivity, poisonousness
	676.017.55:535.31 Reflectance	676.019	Faults. Defects. Degradation
	:535.34 Transparency. Opacity		<i>Further particulars may be denoted by other .0 special auxiliaries, e.g.</i>
	:535.35 Extinction		676.019.02 Faults in or due to specific processes, e.g. in storage
	:535.36 Diffusion. Scattering		.03 Faults in or due to raw materials
	:535.361.2 Gloss		.04 Faults in or due to auxiliary materials
	:535.37 Luminescence. Fluorescence		
	:535.41 Interference	.1	Visible faults (surface faults)
	:535.6 Colour		676.019.1 $\cong$ 620.191
	:535.68 Colour fastness, e.g. yellowing	.13	Irregularities
.56	Thermal properties	.131	Wire marks
	<i>Further particulars may be denoted by colon combination with the subdivisions of 536, e.g.</i>	.133	Cracks. Tears
	676.017.56:536.21 Heat conductivity. Heat insulating capacity	.134	Blisters
	:536.468 Combustibility	.135	Folds. Ripples
	:536.485 Resistance to cold	.136	Holes. Airbells
.57	Electrical properties	.137	Fluff. Lint. Dust
	<i>Further particulars may be denoted by colon combination with the subdivisions of 537, e.g.</i>	.138	Cockling. Curling
	676.017.57:537.226 Dielectric properties	.17	Discoloration. Unevenness of colour
	:537.2 Static electricity		<i>For colour fastness and other optical properties $\rightarrow$ 676.017.55</i>
	:537.31 Conductivity	.172	Spots and specks. Dirt
.58	Magnetic properties	.173	Stains. Burn marks
.6	Physical behaviour towards gases and liquids	.2	Internal faults, flaws and defects
.62	Porosity. Permeability to air, gas, vapour	.264	Pitch troubles
.63	Sizing properties generally. Permeability to water. Water resistance	.3	Damage caused by various agents.
.64	Permeability to inks		Resistance to attack
	<i>Further particulars may be denoted by colon combination with the subdivisions of 667, e.g.</i>	.32	676.019.3 $\cong$ 620.193
	676.017.64:667.4 Permeability to writing inks	.34	Damage caused by atmospheric conditions (e.g. in the tropics)
	:667.5 Permeability to printing inks	.36	Damage caused by chemical action
.65	Permeability to fats, oil, turpentine, kerosine	.37	Radiation damage (including light)
.66	Water absorption. Adsorption. Swelling in water. Cobb test, Bendtsen test etc.	.38	$\rightarrow$ 676.017.55 Acoustic, optical, thermal, electrical and magnetic properties
.67	Absorption of other liquids. Swelling in liquids other than water	.391	Damage caused by electricity, electric discharges etc
.68	Dimensional stability. Shrinking. Expansion	396	Damage caused by micro-organisms, insects etc.
.7	Physical and mechanical processing, serviceability and suitability properties	676.02	Ageing
.72	Printability	.021	Damage caused by storage conditions
.73	Runnability		MANUFACTURING PROCESSES
.74	Foldability. Wrappability. Mouldability		Handling, pretreatment, conservation of fibrous raw materials
.75	Erasability. Sealability		<i>Applicable only to 676.1</i>
.76	Varnishability		<i>Further particulars may be denoted by colon combination with the subdivisions of 63, e.g.</i>
.77	Washability. Filterability		676.021:630*32 Felling of wood
		.2	:631.558.5 Harvesting of agricultural fibres
			Receipt at mill. Handling and storage on mill area

.21	Unloading, handling on arrival and initial storage on mill area	.88	Discharge from storage for use
.212	Water storage, e.g. in log ponds, e.g. 676.1.032.021.212 Pulpwood storage in water	676.022	Mechanical and chemical pulping processes
676.021.214	Land storage. Woodyard, straw and wastepaper stores etc., e.g. 676.1.038.3.021.214 Rag storage		<i>Applicable only to 676.1</i> <i>Further particulars may be denoted by other .0 special auxiliaries, e.g.</i> 676.022.04 Process agents and their preparation
.22	Storage in and treatment of piles, tiers, rands etc.	.08	Treatment of waste liquor. Waste disposal. By-products
.28	Handling from initial storage to preparatory processing	.2	Preliminary treatment in process prior to grinder, digester etc.
.282	Handling from water storage	.21	Treatment by heat and pressure
.2	Loosening of ties, e.g. on wood bundles	.22	Treatment by water, water vapour, steaming, e.g. 676.153.4.022.22 Steaming for brown mechanical pulp
.3	Propulsion of material to point of uptake (by spiked log feeding rollers etc.)	.23	Treatment by other vapours and gases
.4	Removal from storage and conveyance to processing (e.g. by hauls, lifts, conveyors)	.24	Treatment by acid
.284	Handling from land storage (e.g. by cranes, fork lifts)	.25	Treatment by alkali, e.g. 676.153.6.022.25 Pretreatment for chemi-ground wood pulp
.3	Preparatory treatments	.26	Treatment by salts, waste liquor
.32	Reduction to processing size (e.g. in wood rooms)	.3	Charging of pulping equipment. Feeding, packing etc.
.322	Splitting	.32	Feeding, e.g. 676.153.022.32 Feeding logs to grinder 676.154.022.32 Feeding chips to refiner 676.16.022.32 Feeding chips to digester 676.16.022.32.04 Feeding liquor to digester
.323	Sawing	.34	Chop packing etc.
.324	Slashing	.4	Mechanical pulping on grinders, defibrators etc.
.33	Preliminary moistening, soaking, steaming	.43	Grinding of logs, e.g. 676.022.43.032 Grinding of softwood logs <i>Process details may be denoted by the -9 special auxiliaries listed under 66, e.g.</i> 676.022.43-932.2 Continuous grinding .4 Batch grinding
.332	Moistening	.431	Wood feeding speed. Grinding pressure
.333	Soaking	.432	Stone speed
.334	Steaming (e.g. prior to barking)	.433	Temperature. Consistency. Immersion of stone in pit
.34	Cleaning. Removal of unwanted fraction. Barking	.434	Angle of grain at grinding
.342	Sorting. Separating of damaged material	.2	Longitudinal grinding
.343	Cleaning. Dusting. Trimming of broomed ends. Removal of knots, gum streaks, bark cracks etc.	.3	Diagonal grinding
.345	Barking in mill. Decorticating. Pith removal (bagasse)	.438	Burring, sharpening, dulling of pulp stone surface
.36	Comminution. Chipping. Shredding. Crushing	.44	Defibration of chips
.362	Chipping, chopping etc., e.g. 676.021.362.038.3 Rag chopping 676.021.362.038.4 Wood waste slabbing	.443	Processes not using chemicals
.363	Crushing. Chip disintegration. Rechipping, e.g. 676.021.363.038.43 Bark crushing	.444	Processes using chemicals. Cold soda
.38	Finishing of chips etc.	.48	Miscellaneous mechanical pulping processes
.382	Screening of chips etc.	.481	Pulping by explosion (Masonite etc.)
.383	Cleaning of chips, cut straw etc.	.482	Pulping by rotating brushes (MacMillan etc.)
.384	Drying of chips etc., e.g. 676.021.384.038.43 Bark drying	.484	Pulping by ultrasonics
.8	Handling to pre-process, to storage, or to use. Storage	.485	Hammermilling
.84	Conveyance to storage or use (e.g. pneumatic conveyance), including unloading etc. of already prepared chips, e.g. from rail box cars; conveyance of chips from woodroom to silos, digesters etc.; conveyance of bark from woodroom to powerhouse etc.	.6	Chemical pulping and other pulping methods (not specified in .022.4)
.86	Storage		
.862	Open storage systems		
.863	Closed storage systems (e.g. silos, bins)		

676.022.6 (cont'd)	<i>The type of raw material may be denoted by the .03 special auxiliaries, e.g.</i>	676.023.1 (cont'd)	676.023.1-954 Multi-stage bleaching
676.16.022.6.031	Chemical pulping of hardwoods	.11	Bleaching process. Factors influencing the bleaching process
.034	Chemical pulping of vegetable fibres other than wood	.112	Temperature. Bleaching time
.038.3	Chemical pulping of rags	.113	pH value (acidity, alkalinity)
		.114	Concentration
		.115	Circulation
	<i>Further particulars may be denoted by other .0 special auxiliaries, e.g.</i>	.116	Neutralizing. Alkalizing. Oxidizing. Extraction
676.16.022.6.04	Cooking liquors and their preparation	.118	Miscellaneous factors. Influence of catalysts etc.
.08	Waste liquors and by-products	.12	Peroxide and other per-compound bleaching
.61	Pretreatment in digester. Impregnation. Evacuation etc.	.121	Bleaching with hydrogen peroxide
.611	Pretreatment in digester. Prehydrolysis	.122	Bleaching with sodium peroxide
.612	Impregnation. Diffusion	.13	Bleaching with chlorine and chlorine compounds
.618	Evacuation	.131	Bleaching with chlorine (Celdecor-Pomilio etc.)
.62	Digestion and cooking. Factors influencing digestion	.132	Bleaching with hypochlorites
	<i>Process details may be denoted by the -9 special auxiliaries listed under 66, e.g.</i>		<i>Specific hypochlorites may be denoted by colon combination with the subdivisions of 546</i>
676.022.62-915.1	Acid digestion and cooking	.133	Bleaching with inorganic chlorites
-915.2	Neutral digestion and cooking	.134	Bleaching with organic chlorites
-915.3	Alkaline digestion and cooking	.135	Bleaching with chlorine dioxide
-932.2	Continuous digestion and cooking	.14	Bleaching with sulphur compounds
-932.4	Batch digestion and cooking	.141	Bleaching with sulphur dioxide
-953	Single-stage digestion and cooking	.142	Bleaching with bisulphite
-954	Multi-stage digestion and cooking	.143	Bleaching with hydrosulphite (zinc or sodium)
.621	Circulation of liquor		<i>For extraction stage with caustic soda solution → 676.023.116</i>
.622	Circulation of steam		<i>For optical bleaching → 676.024.722</i>
.623	Liquor volume. Chip liquor ratio	.024	Mechanical aftertreatment. Handling of pulp slurries. Paper and board stock preparation
.624	Pressure. Relief. Temperature. Time	.1	Handling of pulp and paper slurry stock. Flow systems
.627	Reduction of pressure at end of cook. Degassing	.13	Pumping and conveying
.628	Liquor displacement in digester. Washing in digester. Liquor drainage. Dumping. Blowing	.14	Thickening. Dewatering. Diluting
.023.1	Bleaching, e.g.	.15	Proportioning. Metering
676.153.023.1	Bleaching of groundwood pulps	.16	In-process storage
676.163.023.1	Bleaching of sulphite pulps	.17	Mixing. Agitation
676.164.3.023.1	Bleaching of kraft pulps	.2	Washing. Washing in digester
	<i>For bleach liquors and their preparation → 676.043</i>		<i>For in digester washing in pulping → 676.022.628</i>
	<i>For recovery and preparation of bleach chemicals from bleaching waste liquor → 676.08</i>	.3	Fibre dispersion (i.e. before washing, before screening etc.). Waste paper dispersion
	<i>Process details may be denoted by the -9 special auxiliaries listed under 66, e.g.</i>		<i>Further particulars may be denoted by colon combination, e.g.</i>
676.023.1-932.2	Continuous bleaching	676.024.3:66.084	Fibre dispersion by vibrations, by ultrasonics
-932.4	Batch bleaching	.4	Separation of dirt. Screening and cleaning. Despecking. Fractionation
-953	Single-stage bleaching	.42	Preliminary separation of dirt with knotters, sandtraps etc.
		.43	Screening and straining
		.44	Cleaning
		.45	Fractionation

676.024.46	Magnetic and electrostatic separation	676.026	Pulp, paper and board making
.48	Separation according to application. Hot stock screening. Knotting. Fines removal. Pitch removal. Removal of wet strength and plastics. Final screening and cleaning ahead of machine	.1	Flow and flow systems in approach flow and wet end <i>Further particulars may be denoted by colon combination, e.g.</i> 676.026.1:532 Fluid mechanics (mechanism of stock dispersion and flow box by hydrodynamics etc.)
.5	Disintegration of pulp sheets, waste paper, broke and trim etc., e.g. 676.15.024.5 Defibration of pulp sheets 676.2.038.22.024.5 Defibration of waste paper 676.2.038.23.024.5 Defibration of broke and trim	.11	Flow theory, spreading, distribution, turbulence, concentration etc.
.51	Preparation, feeding and loading (including roll splitting)	.12	Flow systems
.52	Soaking	.13	Flow in stuff box, machine chest etc.
.53	Defibration	.14	Flow in regulating box, mixing box, mixing pumps etc.
.6	Beating and refining	.15	Flow in head boxes, breast box, flow box etc.
.61	Beating procedure. Theory. Influencing factors	.16	Flow at stock inlet, manifold systems etc.
.611	Beating time. Temperature	.17	Flow distribution at perforated rolls, monkey rolls etc.
.614	Concentration	.2	Formation and water removal on the wire, e.g. 676.1.026.2 Pulp formation
.615	Circulation	.21	Formation theory. Influencing factors
.65	Beating according to type of beater	.212	Drainage on wire, at couching etc.
.66	Refining according to type of machine	.213	Fibre orientation. Flocculation. Influence of shake
.67	Special types of beating and refining method. Shunt-beating, HCR etc.	.214	Fibre bonding
.7	Chemical treatment of stock. Addition of non-fibrous additives and constituents. Dyeing. Filling. Sizing <i>Chemical or other additions may be denoted by colon combination with the subdivisions of 54, 55 or 66</i>	.216	Influence of suction
.72	Colouring. Dyeing (in stock)	.22	Making of paper by hand. Watermarking <i>For watermarking at sheet forming → 676.026.32</i>
.721	Building-up colour formulae. Theory. Influencing factors. Retention	.23	Making of paper on fourdrinier machines
.722	Colouring in stock. Optical bleaching. Surface colouring →676.026.721 Surface colouring	.24	Making of paper on cylinder machines <i>Further particulars may be denoted by the -9 special auxiliaries listed under 66, e.g.</i> 676.026.24-942 Uniflow machines -944 Counterflow machines
.73	Loading. Filling	.241	Single-cylinder machines
.731	Theory. Influencing factors. Retention	.242	Multi-cylinder machines
.74	Sizing in stock and wet end	.243	Intermittent board machines (wet machines)
.741	Sizing process. Theory. Influencing factors. Precipitation of size on fibres. Retention <i>Chemical sizing materials may be denoted by the .04 special auxiliaries and colon combination with the subdivisions of 54 and 66</i>	.25	Making of paper on combined machines
.747	Specific processes <i>Subdivide alphabetically by names of processes (Table 1h)</i>	.251	Yankee M.G. combined
.76	Addition of additives for improving specific paper properties (e.g. absorbency, softness, opacity, whiteness, preservation)	.252	Cylinder combined
.78	Addition of additives for combating difficulties of manufacture	.26	Making of paper on other machines for wet processes. Making of paper on machines for non-woven by wet process
.782	Improving dewatering drainage	.27	Making of paper by dry processes (air felting)
.783	For prevention of pitch troubles	.3	Sheet transfer and draw
.784	For prevention of slime formation	.31	Factors influencing sheet transfer
.785	For prevention of foam formation	.311	Angle of take-off from couch to first press
.82	De-aeration	.312	Speed differences between sections
		.32	Couching (open-draw couch). Watermarking at sheet forming
		.34	Pick-up (vacuum)
		.38	Lamination of wet sheets
		.4	Pressing and water removal in the presses. Molette watermarking

676.026.5	Drying, vapour/condensate removal. Cooling, e.g.	676.026.724	Internal protection. Impregnation. Saturation. Parchmentation. Vulcanizing
	676.1.026.5 Pulp drying		<i>Solutions may be denoted by the .04 special auxiliaries and colon combination with the subdivisions of 54 or 66</i>
	676.2.026.5 Paper and board drying		
.52	Transfer of water from sheet to air	.2	Impregnation
.521	Transfer of water by conduction and/or convection	.21	Theory. Methods of application etc.
.1	Hot cylinder drying (including M.G. drying)	.4	Parchmentation
.2	Hot air drying (e.g. tunnel and high velocity)	.41	Theory. Penetration into fibre. Influence of parchmentation agent on fibres. Duration of influence. Factors influencing parchmentation
.3	Hot liquid drying (e.g. fluid bed)		
.522	Transfer of water by radiation, e.g. infra-red drying	.42	Methods of application. Pressing. Washing. Neutralizing. Aftertreatment. Drying
.523	Transfer of water by generation of heat within the sheet (passage of an electric current, or radio frequency energy transfer)	.73	Laminating of paper and board layers, of paper and board with films, foils
.524	Transfer of water in hood systems	.732	Adhesive lamination with water-based or solvent adhesives
.1	Open	.733	Hot melt lamination with wax or combined wax/resin adhesives
.2	Closed	.735	Heat and pressure bonding of webs, foils
.525	Transfer of water in festoon driers, in drying lofts, in open air etc.	.74	Patterning
.53	Removal of moisture from the felts. Bottom felt drying systems	.742	Embossing. Application of false watermarks and of imitation watermarks
.54	Removal of condensate from the cylinders. Removal of moist air from machine room. Heating and ventilating. Cooling (calender)	.743	Graining and marbling
.7	Sheet treatment on-machine or off-machine	.744	Abrasive surface application
.71	Smoothing. Calendering	.745	Flock and velour surface application
.712	Intermediate wet smoothing (breaker stack)	.75	Extensible making of paper
.713	Machine calendering	.752	Crêping
.714	Supercalendering	.758	Other methods
.72	Surface improvement and other protective treatments	.76	Compressing, consolidating, e.g. consolidation of fibreboard
.721	Surface colouring	.77	Conditioning and damping. Maturing
.722	Sizing	.78	Miscellaneous processing
.2	Sizing at size press	.028	Finishing aftertreatment
.4	Sizing at calender	.2	Unwinding and rewinding
.723	Coating. Surface protection	.22	Reel starting
	<i>Coating materials may be denoted by the .04 special auxiliaries and colon combination with the subdivisions of 54 or 66</i>	.23	Unwinding
	<i>Recovery of solutions may be denoted by the .08 special auxiliaries</i>	.24	Winding
.1	Theory	.26	Splicing and web joining
.2	Dip coating	.28	Roll changing
.3	Brush coating. Air knife coating. Knife coating. Blade coating. Bar or rod coating	.3	Roll slitting (rewinding)
.4	Strip coating. Cast coating. Extrusion coating. Curtain coating. Spray coating	.4	Sheet handling
.5	Roll coating. Print roll coating. Coating with ion exchange. Electrostatic coating. Dry coating	.42	Cutting
.6	Hot melt coating. Asphaltting. Bituminizing. Paraffining. Waxing. Varnishing. Lacquering and solvent coating. Emulsion and latex coating	.43	Trimming
.8	Special coating methods	.44	Counting
	<i>Subdivide alphabetically by names of processes (Table 1h)</i>	.46	Sorting and inspection. Folding. Weighing
		.6	Wrapping and packing of rolls, sheets etc.
		.8	Marking, e.g.
			676.1.028.6 Pulp baling, tying etc.
			Stacking, storage, handling prior to dispatch
			FIBROUS RAW MATERIALS
			Wood
			<i>Area of origin may be denoted by Table 1e common auxiliaries of place, e.g. [676.031/.032](211) Wood from cold regions</i>

676.031/.032 (cont'd)	[676.031/.032]	(212) Wood from temperate regions	.16	Pine. <i>Pinus</i> spp.
		(213) Wood from tropical and subtropical regions	676.032.18	Yew. <i>Taxus</i> spp.
			.21	Hemlock. <i>Tsuga</i>
			.22	Douglas fir. Oregon pine. <i>Pseudotsuga</i>
.031	Hardwood (deciduous, broadleaf)		.24	Parana pine. <i>Araucaria</i>
.1/.3	Hardwood used for pulp production		.25	Redwood. <i>Sequoia</i>
	<i>The following subdivisions are broadly in agreement with those of 674.031.1/.3</i>		.4	Botanical subdivision of softwood
.11	Oak. <i>Quercus</i> spp.			676.032.4 $\cong$ 674.032.4, e.g.
.12	Beach. <i>Fagus</i> spp.			676.032.473.272 Parana pine. <i>Araucaria angustifolia</i>
.13	Chestnut. <i>Castanea</i> spp.			.475.242 Norway spruce. <i>Picea abies</i>
.15	Ash. <i>Fraxinus</i> spp.			.475.273 Balsam fir. <i>Abies balsamea</i>
.16	Maple. <i>Acer</i> spp.			.475.342 European larch. <i>Larix decidua</i>
.17	Elm. <i>Ulmus</i> spp.			.475.442 Common pine. <i>Pinus silvestris</i>
.21	Birch. <i>Betula</i> spp.			.475.472 Longleaf pine. <i>Pinus palustris</i>
.22	Alder. <i>Alnus</i> spp.			.475.474 Shortleaf pine. <i>Pinus ochinata</i>
.23	Acacia. <i>Acacia</i> spp.			.475.475 Loblolly pine. <i>Pinus taeda</i>
.31	Basswood. Lime. <i>Tilia</i> spp.			.475.477 Slash pine. <i>Pinus caribaea</i>
.32	Poplar, cottonwood. <i>Populus</i> spp.			.475.479.5 Red pine. <i>Pinus resinosa</i>
.33	Aspen. <i>Populus tremula</i>			.475.479.8 Jack pine. <i>Pinus banksiana</i>
.34	Willow, sallow. <i>Salix</i> spp.			.475.572 Red spruce. <i>Picea rubens</i>
.35	Plane, platane. <i>Platanus</i> spp.			.475.573 White spruce. <i>Picea glauca</i>
.37	Eucalyptus. <i>Eucalyptus</i> spp.			.475.576 Sitka spruce. <i>Picea sitchensis</i>
.5/.9	Botanical subdivision of hardwood			.475.673 Western hemlock. <i>Tsuga heterophylla</i>
	676.031.5/.9 $\cong$ 674.031.5/.9, e.g.			.475.772 Douglas fir. <i>Pseudotsuga taxifolia</i>
	676.031.623.234.5 Eastern cottonwood. <i>Populus deltoides</i>			.476.24 Redwood. <i>Sequoia sempervirens</i>
	.632.134.3 White birch. <i>Betula verrucosa</i>			<i>Alternatively, the species name may be added using alphabetic subdivision A/Z (Table 1h)</i>
	.632.134.4 White birch. <i>Betula pubescens</i>			.034 Vegetable fibrous raw materials other than wood
	.632.137.2 Yellow birch. <i>Betula lutea</i>			.2 Grass. Straw etc.
	.632.137.4 Paper birch. <i>Betula papyrifera</i>			.22 Cereal straw
	.632.267.52 White oak. <i>Quercus alba</i>			.23 Esparto. Alfa
	.725.272 Red gum. <i>Liquidambar styraciflua</i>			.24 Flax. Hemp. Jute. Ramie
	.772.227.2 Silver maple. <i>Acer saccharinum</i>			.25 Sugar cane (bagasse)
	.795.272 Basswood. <i>Tilia americana</i>			.26 Bamboo
	.883.271 Eucalyptus. <i>Eucalyptus regnans</i>			.27 Reeds. <i>Arundo donax</i> etc.
	.931.272 White ash. <i>Fraxinus americana</i>			.4 Fibres from bast and bark. Kozo (mulberry tree). Mitsumata. Gampi
	<i>Alternatively, the species name may be added using alphabetic subdivision A/Z (Table 1h)</i>			.5 Leaf fibres. Sisal. Manila hemp. New Zealand flax. Tobacco
.032	Softwood (coniferous wood)			.6 Fibres from seeds. Linters
.1/2	Softwood used for pulp production			.8 Other vegetable fibres
	<i>The following subdivisions are broadly in agreement with those of 674.032.1, with some additions under 676.032.2</i>			.81 Agricultural waste other than straw
.11	Fir. <i>Abies</i> spp.			
.12	Thuja. <i>Thuja</i> spp.			
.13	Spruce. <i>Picea</i> spp.			
.14	Larch. <i>Larix</i> spp.			

.83	Seaweed	676.043 (cont'd)	:546.33'133.1 Sodium hypochlorite
676.034.84	Peat, Half-fossil fibres. Fossil fibres		:546.33'224 Sodium sulphite
.035	Organic synthetic and regenerated fibres		:546.41'133.1 Calcium hypochlorite
.036	Inorganic fibres		:546.47'224 Zinc sulphite
.038	Wastes and secondary fibres	.044	Additives used in mechanical aftertreatment, in stock preparation washing, drying, filling, sizing, for improving paper properties, for foam prevention etc.
.2	Waste paper and waste board. Broke and trim		<i>Further particulars may be denoted by colon combination, e.g.</i>
.22	Paper and board waste		676.044:546.824-31 Titanium dioxide for paper filling
.23	Broke and trim. Dry broke. Wet broke		:547.1'128 Silicones for waterproofing of paper
.3	Rags and textile waste including wool and silk		:547.281.1 Formaldehyde for hardening of size
.4	Wood waste. Sawdust, slabbing chips etc.		:547.631.6 Auramines for dyeing of paper
.43	Barks		:553.612 Kaolin for filling of paper
676.04	NON-FIBROUS RAW MATERIALS AND ADDITIVES. PROCESS AGENTS. PROCESS WATER		:665.947.2 Colophony for sizing of paper
	<i>The subdivisions of .041/.046 are broadly in agreement with those of .021/.026 Materials may be denoted by colon combination with the subdivisions of 54, 55, 66 or 67, e.g.</i>		
	676.04:663.63 Process water		
	<i>Further particulars may be denoted by other .0 special auxiliaries, e.g.</i>		
	676.04.02 Manufacture of process agents	.046	Additives used to promote dewatering on wire for improving of paper surface, surface sizing, coating, waxing, varnishing, lacquering, impregnation, lamination
.041	Accessory materials and additives used in pretreatment of fibrous raw material		<i>Further particulars may be denoted by colon combination, e.g.</i>
	<i>Further particulars may be denoted by colon combination, e.g.</i>		676.046:546.226-325 Sulphuric acid for manufacture of vegetable parchment
	676.041:546.19 Inorganic arsenic compounds		:547.458.61 Starch for board lamination
.042	Pulping chemicals and additives		:547.916 Waxes
	<i>Further particulars may be denoted by colon combination, e.g.</i>		:678.742.2 Polyethylene for coating of paper etc.
	676.042:546.13 Chlorine	676.05	MACHINERY AND EQUIPMENT FOR PULP, PAPER AND BOARD PRODUCTION
	:546.175-32 Nitric acid		<i>The subdivisions of .05 are broadly in agreement with those of .02</i>
	:546.224-31 Sulphur dioxide	.051	Machinery and equipment for handling, pretreatment and storing of raw materials (pulpwood, agricultural fibres etc.)
	:546.33-36 Sodium hydroxide		.2 Machinery and equipment for receipt at mill, handling and storage on mill area
	:546.33'224 Sodium sulphite		.21 Machinery for unloading, handling on arrival and initial storage on mill area
	:546.33'133.3 Sodium chlorite		.212 Water stores. Log ponds. Flumes etc.
	:546.33'224-384 Sodium bisulphite		.214 Land stores. Woodyards. Rag stores. Waste paper stores etc.
	:546.33'226 Sodium sulphate		.28 Machinery for handling from initial storage to preparatory processing etc. Log slips. Log hauls. Log feeding rollers. Lifts. Grapples. Cranes, conveyors etc.
	:546.33'264 Sodium carbonate		<i>Further particulars may be denoted by colon combination with the subdivision of 621.86/.87</i>
	:546.41'224-384 Calcium bisulphite		
	:546.46'224-384 Magnesium bisulphite		
	:546.46'224 Magnesium sulphite		
	:553.551.1 Limestone		
	:661.7.061 Organic solvents		
	:666.924 Lime		
.043	Bleaching agents	676.051.3	Machinery and equipment for preparatory treatment of wood etc.
	<i>Further particulars may be denoted by colon combination, e.g.</i>		
	676.043:546.13 Chlorine		
	:546.134 Chlorine dioxide		
	:546.224-31 Sulphur dioxide		
	:546.33-36 Sodium hydroxide		

.32	Machinery and equipment for reduction to processing size	676.052.1 (cont'd)	676.052.1:66.067.3 Filters
.322	Splitters		:66.067.3-982 Vacuum filters
.323	Saws		:661.242.2 Pyrites roast ovens
.324	Slashers		:661.242.5 Sulphur burners
.33	Moistening equipment. Soaking equipment. Steaming equipment	.2	:666.92.041.57 Rotary lime kilns
.332	Moistening equipment		Apparatus for preliminary treatment prior to grinder, digester etc. Steaming vessels.
.333	Soaking equipment. Ponds, tubs etc.	.3	Treatment chambers. Pressure chambers etc.
.334	Steaming equipment. Canals etc.		Apparatus for charging of grinders, digesters etc. Chip packers. Chip distributors etc.
.34	Sorting equipment. Cleaning equipment. Barking equipment	.4	Grinders, defibrators and other apparatus for mechanical pulping
.342	Sorting equipment	.43	Grinders
.343	Cleaning equipment. Wood washing drums. Rag trashers	.435	Periodically working grinders. Pocket grinders. Magazine grinders
.345	Barkers (mill barking)	.436	Continuous grinders, hydraulic
.2	Individual log barkers. Knife barkers	.437	Continuous grinders with feed chains, feed screws, grinding wheels. Ring-type grinders
.3	Rotating friction barkers. Barking drums	.438	Grindstones. Sharpening and dulling devices etc.
.4	Stationary friction barkers		Refiners for chips. Disc refiners. Press refiners etc.
.5	Hydraulic barkers with jet friction	.44	Miscellaneous machinery and equipment for mechanical pulping
.36	Machinery for comminution (size reduction)	.48	Equipment for explosion processes
.362	Chippers. Choppers. Hogs. Rag cutters		Rotating brushes
.363	Crushers. Chip disintegrators. Rechipers. Attrition mills	.481	Ultrasonic apparatus
.38	Machinery for screening, cleaning, drying of chips, rags, cut straw etc.	.482	Hammer mills etc.
.382	Chip screens (rotary, shaker, vibratory, gyratory screens etc.)	.484	Digesters
.2	Rotary screens	.6	Accessory equipment (for digesters)
.3	Shaker screens	.62	Circulation devices, systems
.4	Vibratory screens	.621	Degassing equipment etc.
.383	Chip cleaners. Rag dusters. Magnetic pulleys etc.	.627	Blowing equipment etc.
.384	Chip driers. Bark driers. Bark presses	.628	Miscellaneous equipment. Linings etc.
.8	Machinery for handling and conveyance to storage and use	.629	Periodic digesters, rotary and stationary
.82	Chip weightmeters etc.	.63	Continuous digesters
.84	Chip conveyors. Bucket elevators. Chip pipes. Bark conveyors etc.	.64	
.86	Storage bins etc.	.053.1	Machinery and equipment for bleaching of pulp
.863	Chip silos. Chip bins etc.	.16	Chests, towers for neutralizing, alkalizing, extraction etc.
.88	Discharge equipment (not built into bins etc.)	.17	Bleach potchers. Bleach hollanders. Bleach chests
.052	Machinery and equipment for pulping processes	.18	Bleaching towers
	<i>Applicable only to 676.1</i>	.19	Miscellaneous equipment. Linings etc.
.1	Machinery and equipment for preparation of liquor (cooking etc.)	.054.1	Machinery and equipment for mechanical aftertreatment of pulp, for handling of pulp slurries and stock suspensions
	<i>Further particulars may be denoted by colon combination, e.g.</i>	.14	Thickeners. Concentrators etc.
	676.052.1:66.023.22 Vats	.15	Proportioners. Concentration regulators
	:66.023.23 Absorption towers	.16	In-process storage bins, stuff chests etc.
	:66.045.1 Heat exchangers	.17	Mixing and agitating equipment
	:66.045.5 Coolers	.2	Machinery and equipment for washing of pulp. Washing drums. Wash filters. Diffusers. Vacuum filters
	:66.049.1/.2 Evaporators	.3	Machinery and equipment for fibre dispersion before washing, screening etc.
			<i>Further particulars may be denoted by colon combination, e.g.</i>

676.054.3 (cont'd)	676.054.3:66.084 Ultrasonic equipment for fibre dispersion	676.056.23	Fourdrinier machines
.4	Machinery and equipment for separation of dirt, for screening and cleaning, for despecking, for fractionating	.24	Cylinder machines (vat machines)
.42	Knotters. Bullscreens. Sandtraps		<i>Further particulars may be denoted by the -9 special auxiliaries listed under 66, e.g.</i>
.43	Flat screens. Rotary screens		676.056.24-942 Uniflow machines
.44	Rifflers. Centrifugal cleaners. Vortex cyclones, cleaners. Strainers etc.	.241	-944 Counterflow machines
.46	Magnetic separators. Electrostatic separators	.242	Single-cylinder machines
.48	Screening and cleaning equipment according to application	.243	Multi-cylinder machines
.5	Disintegrators and breakers for pulp sheets, waste paper and broke. Pulpers.	.25	Intermittent board machines (wet lap machines). Presse-pâte machines
	Hydrapulpers. Kollergangs	.26	Machines of combined types
.53	Defibrators	.27	Other machines for wet processes
.6	Beaters. Refiners	.3	Machines for dry processes, air felting etc.
.65	Beaters	.31	Apparatus and equipment for forming of sheet, couch, sheet transfer and draw
.652	Hollanders	.311	Forming board with rolls and suction boxes
	<i>Further particulars may be denoted by the -1 special auxiliaries listed under 62, e.g.</i>	.312	Forming board
	676.054.652-131.1 Hollanders with vertical circulation	.313	Rolls. Breast rolls. Tube rolls. Table rolls etc.
	.2 Hollanders with horizontal circulation	.314	Equipment to cause shake, to cause fibre orientation
.2	Device for feeding. Regulators for concentration, circulation etc.	.1	Suction boxes (stationary, movable etc.)
.3	Bedplates. Rolls. Bars. Troughs. Knives etc.	.2	Suction boxes without rolls
.653	Rod mills etc	.32	Suction boxes with rolls
.654	Conical beaters. Jordan beaters		Couch rolls. Suction couch rolls. Dandy rolls.
.66	Refiners. Curlators	.34	Watermark rolls. Transfer rolls etc.
.662	Conical refiners. Morden refiners. Jones refiners	.38	Pick-ups. Lick-ups
.663	Disc refiners	.4	Apparatus for lamination of sheets, plies
.667	Curlators	.42	Machinery and equipment for pressing and removal of water in presses, for Molette watermarking. Special equipment for paper and board machines
.7	Machinery and equipment for chemical treatment of stock, for addition of fillers and additives, for dyeing, filling, sizing	.45	Extractor rolls. Couch presses. Place presses.
.72	Machinery for preparation and addition of dyeing lyes	.456	Suction presses. Smoothing presses. Baby rolls. Manchones. Reverse presses
.73	Machinery for preparation and addition of loadings and fillers	.457	Special equipment for paper machines and board machines
.74	Machinery and equipment for preparation and addition of size (in stock)	.458	Wires for paper machines and board machines
.82	De-aerators	.46	Equipment for guiding and stretching of wires
.056	Machinery and equipment for sheet making. Paper machines. Board machines	.467	Equipment for seaming of wires. Changing devices for wires etc.
.1	Equipment and machinery for approach flow	.468	Equipment for washing of wires
.13	Stuff boxes. Machine chests. Vats etc.	.466	Felts for paper machines and board machines
.14	Regulating boxes. Mixing boxes. Level head tanks etc.	.467	Equipment for guiding and stretching of felts. Felt tensioners etc.
.15	Head boxes. Breast boxes. Flow boxes etc.	.468	Equipment for seaming of felts. Changing devices
.16	Slices. Manifold tubes etc.	.47	Equipment for washing, drying and conditioning of felts
.17	Perforated rolls, monkey rolls etc.	.47	Equipment for leading of paper web. Dancing rolls etc.
.22	Equipment for paper making by hand.	.48	Auxiliary apparatus. Deckle straps. Deckle boards. Deflectors. Doctors. Rope carriers. Break indicators, alarm devices. Apparatus for preventing static electricity etc.
	Moulds, deckles etc.	.49	Machinery for circulation of backwater, white water. Save-alls etc.
.23/.27	Survey of paper machines, board machines etc.		

676.056.5	Drying machinery <i>The type of firing may be denoted by colon combination with the subdivisions of 662.9, e.g.</i> 676.056.5:662.95 Gas-burner driers	676.058	Apparatus for roll finishing. Apparatus for cutting, sorting, wrapping, packing etc.
.521	Conduction or convection drying devices	.1	Unwinders. Rewinders. Splicers. Roll changers
.1	Drying cylinders	.2	Slitters
.2	Drying tunnels. Flakt driers	.3	Machinery for cutting, trimming, counting, sorting etc.
.3	Fluid beds	.31	Cutters. Rotary cutters. Rotating knives. Simplex cutters. Duplex cutters. Single-sheet cutters
.522	Radiators. Infraradiators etc.	.32	Machines and apparatus for trimming etc., e.g. guillotine trimmers
.525	Festoon driers. Drying lofts	.33	Apparatus for counting of sheets etc., e.g. mechanical counters. Electronic counters
.53	Felt driers	.34	Machinery for sorting, folding, weighing, e.g. electronic stack sorters
.54	Ventilators etc.	.6	Machinery for wrapping and packing of rolls, sheets, e.g. 676.1.058.6 Pulp baling
.7	Machinery for treatment of sheet, on- and off-machine	.8	Apparatus for stacking, storing etc.
.71	Calenders, rolls and presses for finishing	676.06	PRODUCTS ACCORDING TO SPECIFIC CHARACTERISTICS OR PROPERTIES <i>Pulp, paper and board products, denoted by 676.11.2 main numbers, may be designated further according to properties by the following .06 auxiliaries (and also according to shape or form by the -4 special auxiliaries listed under 62). Sizes may be expressed by adding (ISO) A4, A5, B, etc., or actual dimensions in brackets →676.017.22 Dimensions</i>
.712	Calenders for wet smoothing. Wet smoothing presses. Baby presses. Smoothing calenders. Intermediate calenders stack. Sweat rolls	.064	Products according to principal physical and chemical characteristics and composition
.713	Machine calenders and parts	.1	Paper
.714	Supercalenders and parts	.2	Board <i>These numbers should be used only when the relevant main number does not distinguish between paper and board, e.g. 676.237.064.2 Drawing board</i>
.715	Gloss calenders	.4	Woodfree products
.717	Apparatus for humidifying paper	.5	Wood-containing products
.72	Machinery for surface improvement and protective treatment of paper and board with chemicals	.6	Single-layer products
.721	Equipment for surface colouring of paper and board web	.8	Double-layer, multi-layer products
.722	Equipment for sizing of paper and board on-and off-machine. Tub sizers. Size rolls. Dipper rolls. Upper wooden rolls. Size presses	.065	Products according to bleach and colour properties
.723	Machinery for coating of paper and board. Coaters etc.	.1	Unbleached products
.2	Dip coaters	.2	Bleached products
.3	Brush coaters. Air brush coaters. Air knife coaters. Knife coaters. Blade coaters. Bar and rod coaters. Trailing blade coaters etc.	.5	Uncoloured products
.4	Strip coaters. Spray coaters. Cast coaters. Extruders etc.	.6	Coloured products
.5	Roll coaters. Print roll coaters. Reverse roll coaters. Contra coaters. Electrostatic coaters. Dry coaters etc.	.067	Products according to sheet-treatment characteristics <i>Where appropriate, the five-figure subdivisions of .067 may be further subdivided by a sixth figure 1 On one side only 2 On both sides as at 676.067.241/.242</i>
.6	Hot melt coaters. Wax coaters. Lacquer knives. Laquering machines. Emulsion coaters etc.	.1	Products according to finish
.724	Apparatus for parchmentizing, impregnating etc. Baths for impregnating, parchmentizing, neutralizing, washing etc.	.11	Uncalendered products
.73	Laminators. Hot presses etc. <i>For coating machinery → 676.056.723</i>	.13	Machine-finished products (M.F.)
.74	Machinery for application of patterns etc.	.14	Machine-glazed products (M.G.)
.742	Embossing calenders. Calenders for imitation watermarks etc.	.15	Supercalendered products (S.C.)
.743	Calenders for marbling effects etc.		
.752	Crêping machines etc.		
.77	Conditioners for pulp, paper and board sheets		