

CHEMICAL ANALYSIS

BLACK LIQUOR

Ash	
Carbohydrates, total	KA 11.202
Carbonate, TIC	SCAN-N 32
Carboxylic acids	KA 80.309, 12.207
Chloride	KA 11.102
DMS, MM, DMDS	KA 11.204
Dry matter content	SCAN-N 22
Fibre content	SCAN-N 22
Hydroxide	SCAN-N 33
Inorganic/organic ratio	
Lignin	KA 11.202
Metals	
Ca, Mg, Fe, Mn, Al, Si	SCAN-N 38
Na, K	SCAN-N 37
Ba, Cu, P, Zn mm	ICP-OES
Ca soluble	KA 11.004
Oxalic acid, total amount	SCAN-N 39
Residual alkali	SCAN-N 33
Sulphide	SCAN-N 31
Sulphite, sulphate, thiosulphate	SCAN-N 36
Sulphur, total amount	SCAN-N 35
Tall oil	KA 11.208
Terpenes	KA 80.314

LIME

Acid-soluble sodium	SCAN-N 26
Available lime	SCAN-N 25
Dry matter content	SCAN-N 23
Na, Mg, Ca, Mn, Fe, Al, Si, P, S, mm	SCAN-N 26 mod.
Water-soluble sodium	SCAN-N 27

PAPER AND BOARD

AKD, hydrolysed	KA 10.215
AKD, total amount	KA 10.215

Alkali reserve	ISO 10716
ASA, total amount	KA 10.216
Ash, 900 C	ISO 2144
Carbonate, TIC	SCAN-N 32
Coating layer thickness	
	Light microscopy/ SEM
Coating/barrier composition	SEM
Cold water extract	EN 645
Conductivity, aqueous extract	ISO 6587
Cross-section image	Light microscopy/ SEM
Diisopropylnaphtalenes, DIPN	EN 14719
Dry matter content	ISO 638/ EN 20638
Fibre analysis, pulp type and wood species	ISO 9184
Filler, distribution Z-direction	SEM
Filler, type and amount	SEM
Hot water extract	EN 647
Metals	
Ca, Cu, Fe, Mg, Mn	SCAN-CM 38
K, Na	SCAN-CM 63
Cd, Pb	SCAN-CM 54
Al, Ba, Co, Cr, P, Si, Zn mm	ICP-OES
Moisture content	ISO 287
Optical brightener	KA10.228
Optical brightener, Z-direction	Light microscopy
Pentachlorophenol	ISO 15320
pH, aqueous extract	ISO 29681
Requirements for permancence and durability, Archival paper	ISO 11108
Requirements for permancence and durability, Paper for documents	ISO 9706
SEM-picture	SEM
Starch distribution, Z-direction	Light microscopy
Starch, total amount	SCAN-P 91
Surface pH	Tappi T 529 om-88
Water extractable substance	EN 920
Vessel elements	Light microscopy
Volatile organic compounds	KA 10.222

PROCESS AND FUNCTION CHEMICALS

ASA, quality control	KA 60.205
Defoamer quality, dryness	SCAN-N 22:96

PROCESS LIQUIDS

Alcohols	KA 11.207
Antraquinone	KA 10.225, 80.317
Carbohydrates, soluble	KA 80.311
Carbohydrates, total amount	KA 10.202
Carboxylic acids	KA 80.309, 12.207
Cationic demand	SCAN-W 12
Chlorate	SCAN-W 10
Chloride	ISO 10304-1
Chlorite	ISO 10304-4
COD	SS028142-2
Complexing agents, EDTA, DTPA, NTA	SCAN-W 11
Conductivity	EN 27888/ ISO 7888
Dissolved organic carbon, DOC	SS028199/ EN1484
DMS, DMDS, MM	KA 11.204
Dry matter content	SS 028113
Extractives, GC-MS	GC-MS
Extractives, group separation, gas chromatography	KA 11.200
Extractives, salting-out, gravimetry	KA 11.305
Furfural, HMF, levulinic acid	KA 80.309
Lignanes	GC-MS
Lignin	KA 11.202
Lignosulphonate molecular weight distribution	KA 11.307
Metals	
Ca, Mg, Mn, Al, Si, Fe	SCAN-N 38
K, Na, Ba, Cu, P, Zn mm	ICP-OES
Ca, soluble	KA 11.004
Nitrate	ISO 10304-1
Oxalic acid, soluble amount	SCAN-N 39
Oxalic acid, total amount	SCAN-N 39

pH	SS028122
Phosphate	ISO 10304-1
Phosphor, total amount	SCAN-N 38 mod.
Silicone, total	KA 11.002
Sulphate	ISO 10304-1
Sulphite, sulphate, thiosulphate	SCAN-N 36
Sulphur, total	SCAN-N 35
Suspended solids	EN 872
Suspended solids, 70 um	SS 028138
Terpenes	KA 80.314
Total carbon, TC	SS028199
Total inorganic carbon, TIC	SS028199
Total organic carbon, TOC	SS028199/ EN1484
Unsaponifiable matter (neutral substances, gravimetrically)	SCAN-T 13
Uronic acids	KA 10.203

TALL OIL

Acid number	SCAN-T 11
Ash, 625 C	SCAN-T 4
Resin acids	SCAN-T 14
Soap content	Tappi T 689
Unsaponifiable matter (neutral substances, gravimetrically)	SCAN-T 13

WHITE AND GREEN LIQUOR

Carbonate	SCAN-N 32
Chloride	SCAN-N 4
K, Na	SCAN-N 29
Metals Si, Al, Ca, Mg mm	ICP-OES
Sulphate	SCAN-N 6
Sulphide	SCAN-N 31
Sulphite	KA 11.109
Sulphur, total	SCAN-N 5
Total, active and effective alkali	SCAN-N 30

WHITE WATER

Anions	ISO 10304-1
ASA, total amount	KA 40.201
Carbohydrates, total	KA 10.202
Carboxylic acids	KA 80.309,

	KA 12.207
Cationic demand	SCAN-W 12
Lignin	KA 40.203
Optical brightener	HPLC
Starch	SCAN-P 91
Uronic acids	KA 10.203

WOOD AND PULP

Acid insoluble ash	ISO 776
Alkali resistance R5, R10, R18	ISO 692
Alkali solubility S5, S10, S18	ISO 692
Alpha, beta, gamma cellulose	KA 10.314
Antraquinone	KA 10.225
Ash, 525 C	ISO 1762
Carbohydrates	SCAN-CM 71
Carbonyl end-groups	SCAN-C 22
Chloride	ISO 9197
Chlorine, total amount	SCAN-CM 51
Complexing agents, EDTA, DTPA, NTA	KA 10.220
Conductivity, aqueous extract	ISO 6587
Extract content, acetone, chips	ISO 14453, SCAN-CM 49
Extract content, acetone, pulp	ISO 14453, SCAN-CM 49
Extract content, cyclohexane/acetone 67:03	SCAN-CM
Extract content, dichlormethane	SCAN-C 7
Extractives, GC-MS analysis	KA 10.213
Extractives, group separation	KA 10.214
Fibre charge	SCAN-CM 65
Fibre wall thickness, distribution microscopy	Light
Foch's reactivity test	KA10.224
Hexanal	KA 10.230
Kappa number	ISO 302
Lignin, Klason and acid soluble	Tappi T222
Metals	
Ca, Cu, Fe, Mg, Mn	SCAN-CM 38
K, Na	SCAN-CM 63
Cd, Pb	SCAN-CM 54

Al, Ba, Co, Cr, P, Si, Zn mm	ICP-OES
Molecular weight distribution, pulp	KA 10.312
Organic chlorine	SCAN-CM 52
Oxalic acid, total amount	SCAN-N 39
pH, aqueous extract	ISO 29681
Phenolic groups, free	KA 10.207
Silicone, total amount	KA 10.107
Spots, specks and dirt	Light microscopy/ SEM/FTIR
Sulfur, total amount	SCAN-CM 57
Sulphate	ISO 9198
Surface charge	KA 10.223
Uronic acids	KA 10.203
Washable COD, dry pulp	SCAN-CM 44
Washable COD, wet pulp	SCAN-C 45
Washing loss	SCAN-C 30
Washable TOC, dry pulp	SCAN-CM 44
Washable TOC, wet pulp	SCAN-C 45
Viscosity	ISO 5351
Wood species, fibre analysis	ISO 9184
Z-potential	KA10.223