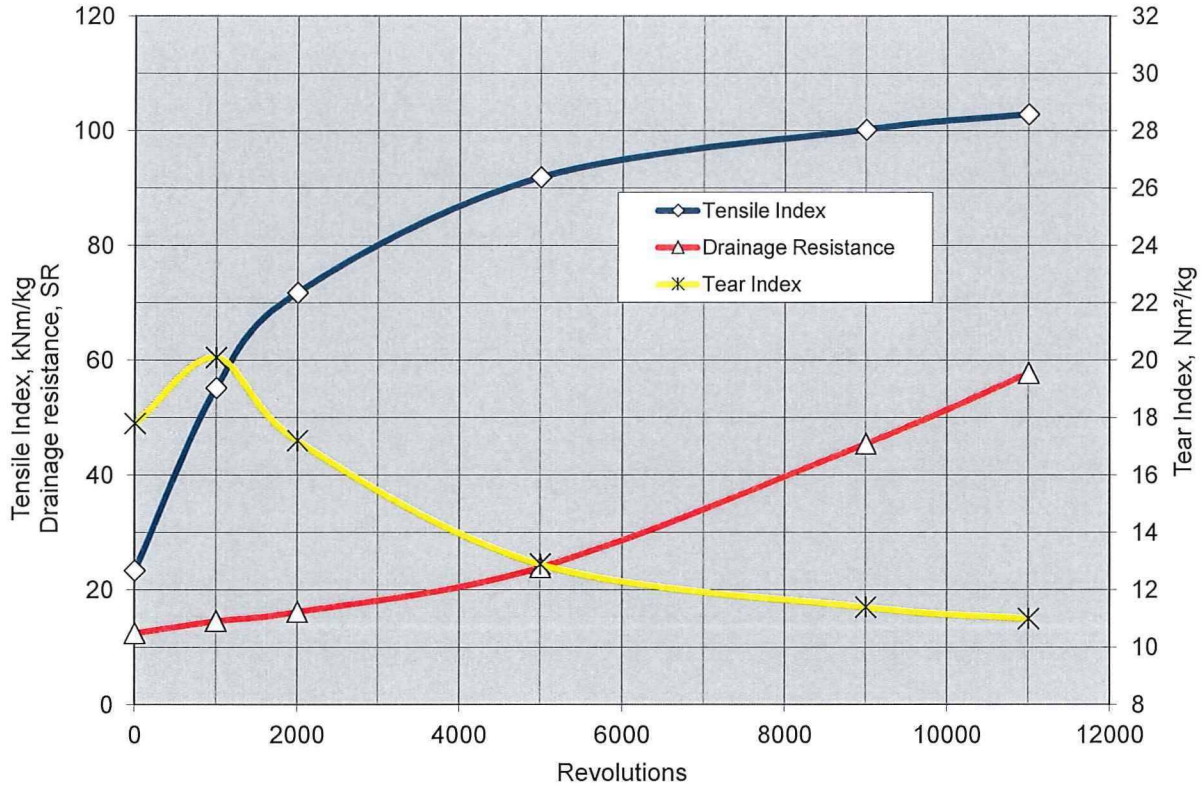


Stendal TCF-Typical properties

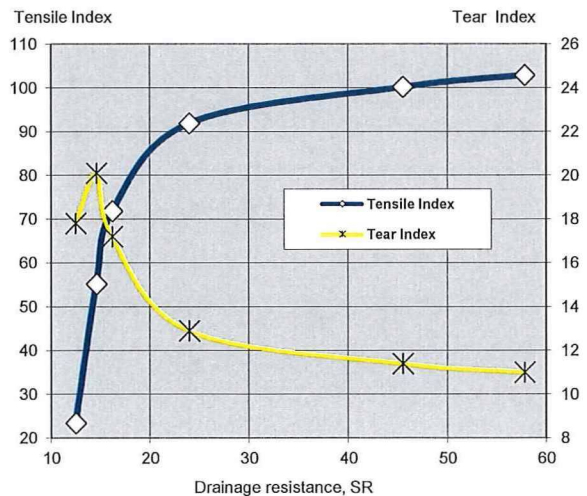
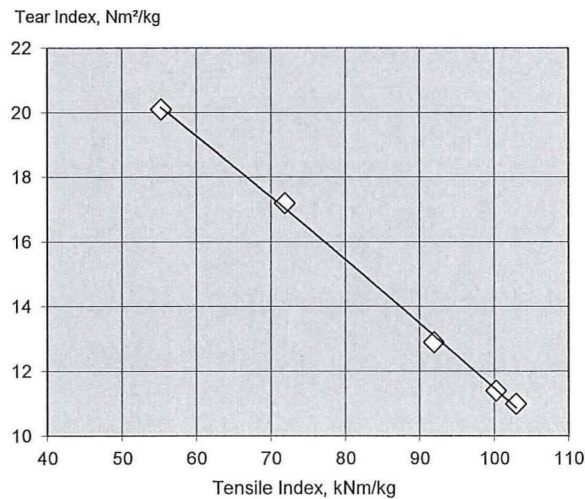
PFI-mill at 23°C and 50% relative humidity

NBSK made of
Pine 40 - 70%
Spruce 30 - 60%



Beating revolutions		0	1000	2000	5000	9000	11000	6200	3000
Density	kg/m³	560	650	690	757	796	811	768	709
Drainage resistance*	SR	12,5	14,6	16,2	24,0	45,5	57,8	30	18
Breaking length	m	2386	5630	7323	9373	10220	10496	9812	8240
Tensile index	kNm/kg	23,4	55,2	71,8	91,9	100,2	102,9	96,2	80
Tear Index	Nm²/kg	17,8	20,1	17,2	12,9	11,4	11,0	12,2	15,5
Elongation	%	2,4	3,8	4,0	4,1	3,8	3,8	3,8	4,0
Burst Index	MN/kg	1,5	4,2	5,2	6,7	7,4	7,5	7,0	5,9
Gurley air permeability	s / 100 ml	1,6	3,5	6,5	30,1	158	347	63,2	9,3
Light scattering coefficient	m²/kg	32,3	25,9	23,2	19,8	17,9	17,1	19,1	21,9
Opacity	%	76,7	72,2	70,0	66,9	64,5	63,6	66,1	69,3
Quantity of analysis		55	14	12	385	23	14	Interpolated	

*Analysed using tap water
Sheet former (Rapid Köthen)



Mercer Pulp Stendal TCF

General Properties	Typical values	Guarantee value	Unit	Method SCAN	Method EN ISO	Frequency	
ISO Brightness	85,8	> 84,5	% ISO	-	3688	1	Day
Sheet brightness	85,1	-	%	-	2470	24	Day
Brightness reversion	3,8	-	%	-	5630-1*	1	Day
Dirt count	1,4	< 3	mm ² /kg	-	5350-2	48	Day
Dirt count	1,2	< 3	ppm	-	5350-2	48	Day
Intrinsic Viscosity	962	> 600	ml / g	-	5351	6	Day
Extractives	0,05	< 0,1	%	CM 49:03	-	4	Month
Ash	0,18	< 0,3	%	-	1762	4	Month
pH	5,2	> 5,0		P 14:65**	-	4	Month
Organic chlorine in pulp	15	< 30	mg/kg	CM 52:94	-	12	Month
AOX removable by washing	0,5	< 5	mg/kg	CM 44:97	-	4	Month

Fibre dimensions, Pulp Eye under development	Typical values	Unit	Range ± 2 SD***	CoV****	Method SCAN	Method EN ISO	Frequency
Fibre length	2,10	mm	0,08	2,0	-	-	Continuous
Fibre width	28,3	µm	0,37	0,7	-	-	Continuous

Preparation of test samples	Target	Variation	Unit	Method SCAN	Method EN ISO	Frequency
Temperature	23	±1	°C	-	187	Continuous
Relative humidity	50	±2	% RH	-	187	Continuous
Preparation of laboratory sheets				-	5269-2	

Physical Properties	Typical value	Unit	Range ± 2 SD***	CoV**** %	Method SCAN	Method EN ISO	Frequency
<u>PFI beating revolutions</u>	<u>0</u>				-	5264-2	
Water Retention Value	1,10	g H2O/g pulp	0,07	3,2	C 62:00	-	1 Day
Density	560	kg/m ³	23	2,1	-	534	1 Day
Drainage resistance	13	SR	5	19,5	-	5267-1	1 Day
Breaking length	2386	m	205	4,3	-	-	1 Day
Tensile index	23,4	kNm/kg	2,0	4,3	-	1924-3	1 Day
Tear index	17,8	Nm ² /kg	5,6	15,8	-	1974	1 Day
Burst index	1,5	MN/kg	0,2	5,4	-	2758	1 Day
<u>PFI beating revolutions</u>	<u>2000</u>				-	5264-2	
Density	690	kg/m ³	24	1,8	-	534	4 Month
Drainage resistance	16	SR	1	3,7	-	5267-1	4 Month
Breaking length	7323	m	483	3,3	-	-	4 Month
Tensile index	71,8	kNm/kg	4,7	3,3	-	1924-3	4 Month
Tear index	17,2	Nm ² /kg	1,1	3,1	-	1974	4 Month
Burst index	5,2	MN/kg	0,4	4,1	-	2758	4 Month
<u>PFI beating revolutions</u>	<u>5000</u>				-	5264-2	
Density	757	kg/m ³	20	1,3	-	534	6 Day
Drainage resistance	24	SR	2	5,2	-	5267-1	6 Day
Breaking length	9373	m	467	2,5	-	-	6 Day
Tensile index	91,9	kNm/kg	4,6	2,5	-	1924-3	6 Day
Tear index	12,9	Nm ² /kg	1,2	4,8	-	1974	6 Day
Burst index	6,7	MN/kg	0,5	3,8	-	2758	6 Day
<u>PFI beating revolutions</u>	<u>9000</u>				-	5264-2	
Density	796	kg/m ³	27	1,7	-	534	8 Month
Drainage resistance	46	SR	8	8,3	-	5267-1	8 Month
Breaking length	10220	m	818	4,0	-	-	8 Month
Tensile index	100,2	kNm/kg	8,0	4,0	-	1924-3	8 Month
Tear index	11,4	Nm ² /kg	1,0	4,6	-	1974	8 Month
Burst index	7,4	MN/kg	0,6	4,4	-	2758	8 Month

* time 24 h


** use of KCl instead of deion. Water

*** standard deviation

**** coefficient of variation, SD*100/average

Approval:


 A. Koppensteiner
 Managing Director


 i. V. Dr. Martin Zenker
 Production Manager