

TECHNICAL DATA SHEET

UPM Betula TCF

TCF Bleached Birch Kraft Pulp
Pulp Mill: UPM Pietarsaari

Date of issue: 08.4.2019

PULP CHARACTERISTICS

	Typical value	Spec
Brightness, ISO % ISO 2470-1	88	≥ 86
Impurities, mm ² /kg ISO 5350	3	
Extractives, % SCAN-CM 49:93	0,3	≤ 0,4
Ash content, % ISO 1762	0,4	≤ 0,7
pH ISO 6588	5,8	5,0-7,0

FIBRE CHARACTERISTICS

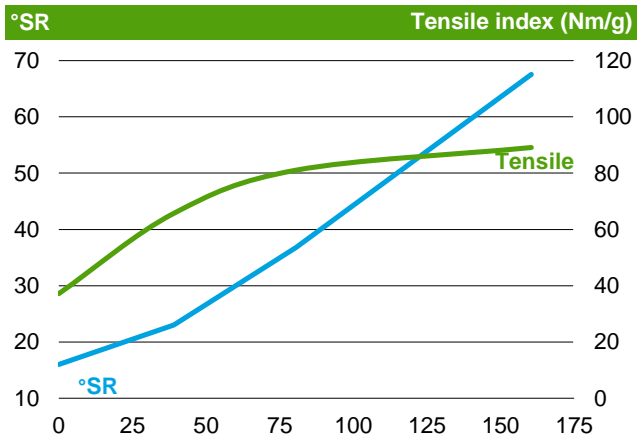
	Typical value
Fibre length, mm Metso FS5	1,03
Coarseness, mg/m Metso FS5	0,08

RAW MATERIAL

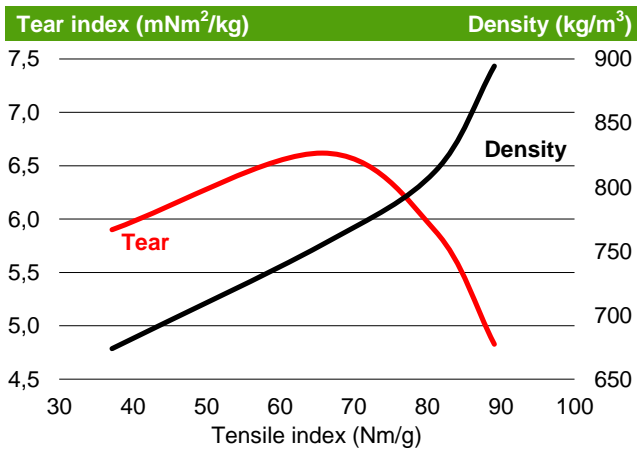
Hardwood

Birch, Aspen and Sawdust

REFINABILITY



TEAR AND DENSITY AT TENSILE



Specific Refining Energy	CSF	SR number	Tensile index	Stiffness index	Tear index	Scott Bond	Density	Opacity	Air res.
kWh/t	ml		Nm/g	Nm/g	mNm ² /g	J/m ²	kg/m ³	%	s
0	570	16	37	5,7	5,9	173	674	74,0	3,6
39	459	23	66	7,6	6,6	456	755	69,5	15
81	301	37	81	8,5	5,9	903	812	65,9	136
160	101	68	89	9,3	4,8	1579	894	57,3	10936
18	520	19	50	6,6	6,2	300	710	71,9	8,9
51	415	27	70	7,9	6,4	580	771	68,5	49
169	79	71	90	9,4	4,7	1654	904	56,4	12131
22	506	20	53	6,8	6,3	335	720	71,4	10,3
45	436	25	68	7,7	6,5	521	763	68,9	33
60	379	30	74	8,1	6,2	683	784	67,6	77

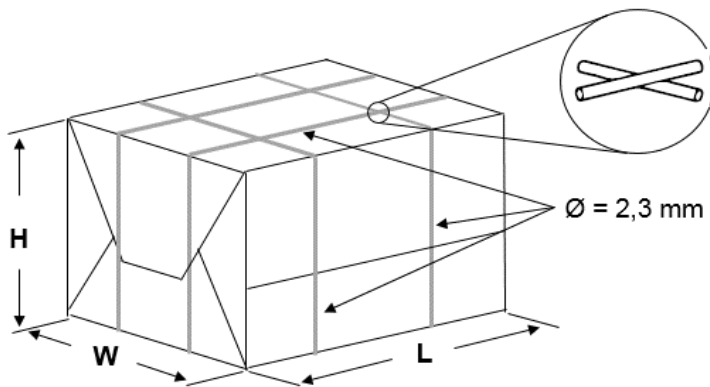
Typical values are averages from all mill quality control samples during 2017. They are given in good faith to represent mill performance and do not constitute contractual undertaking. Values in the table are mean (indicative) values from pulp testing with Voith-Sulzer refining, using standard water. Specific Edge Load 0,5 J/m, ISO testing methods (H 50%, 23 °C, 60 gr/m² sheets).

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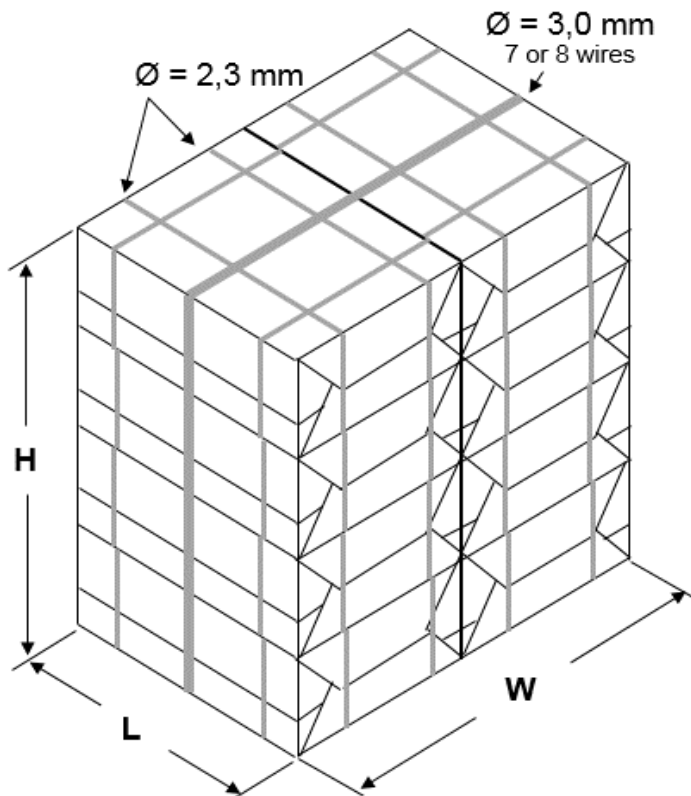
Bale marking

	UPM Betula TCF	BHKP	
	8 5	54504	FIN
	↓ Mill No	↓ Product Lot No	

Standard bale



Standard bale unit configuration



Sheets

Size:	84 x 73 cm
Grammage:	850 g/m ²

Standard bale

Size:	L = 88 cm
	W = 76 cm
	H = 40 cm
Weight:	250 kg
Wrapping:	Pulp sheets (unwrapped on demand)
Markings:	Red watersoluble inkjet printing. Country, company name, product code and bale number on both sides.
Wires:	4 galvanized wires, diameter 2,3 mm.

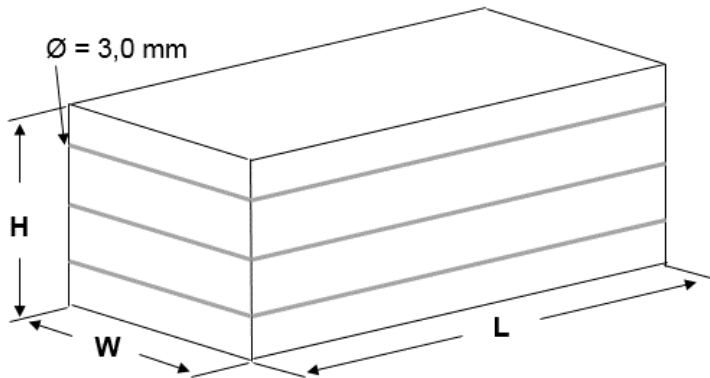
Standard bale unit configuration

Standard bale units

Size:	L = 88 cm
	W = 152 cm
	H = 160 cm
Weight:	2000 kg (8 x 250 kg)
Wires:	Vessel 7 or 8 galvanized wires, Rail and Lorry 2 wires diameter 3,0 mm

UPM Betula TCF

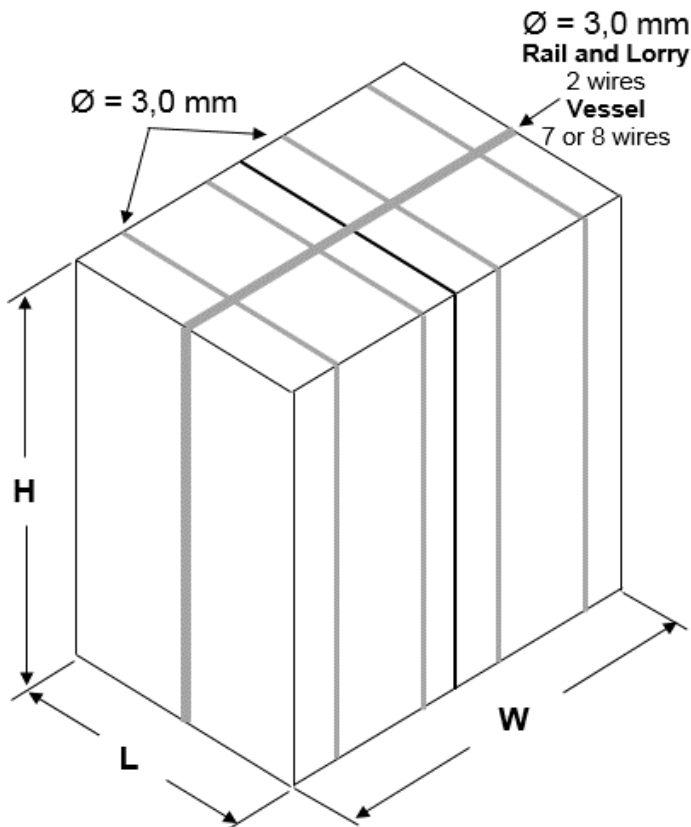
Big bale



Sheets	
Size:	84 x 73 cm
Grammage:	850 g/m ²

Big bale	
Size:	L = 160 cm W = 86 cm H = 75cm
Weight:	1000 kg
Wrapping:	No wrapping
Markings:	Red watersoluble inkjet printing. Country, company name, product code and bale number on both sides.
Wires:	3 galvanized wires, diameter 3,0 mm

Big bale unit configuration



Big bale unit configuration	
Big bale units	
Size:	L = 86 cm W = 150 cm H = 160cm
Weight:	2000 kg (2 x 1000 kg)
Wires:	Vessel 7 or 8 galvanized wires, Rail and Lorry 2 wires diameter 3,0 mm



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