

TECHNICAL DATA SHEET

UPM Betula TCF

TCF Bleached Birch Kraft Pulp
Pulp Mill: UPM Pietarsaari

Date of issue: 12.6.2017

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	0,5	≤ 0,7
pH ISO 6588	6	5,0-7,0

FIBRE CHARACTERISTICS

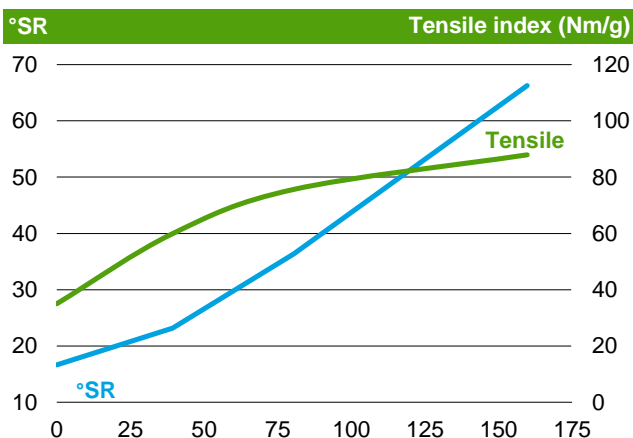
	Typical value
Fibre length, mm Metso FS5	1,0
Coarseness, mg/m Metso FS5	0,08

RAW MATERIAL

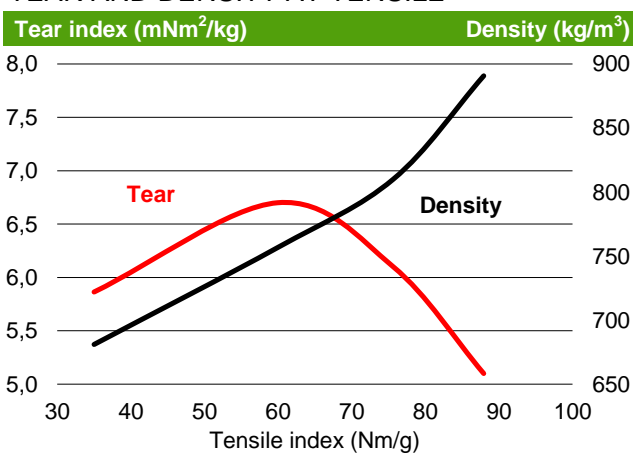
Hardwood

Birch, Aspen and Sawdust

REFINABILITY



TEAR AND DENSITY AT TENSILE



Specific Refining Energy kWh/t	CSF ml	SR number	Tensile index Nm/g	Stiffness index Nm/g	Tear index mNm ² /g	Scott Bond J/m ²	Density kg/m ³	Opacity %	Air res. s
0	557	17	35	5,4	5,9	176	681	73,8	3,6
39	447	23	60	7,2	6,7	419	757	69,3	14
80	302	36	76	8,1	6,1	789	810	66,0	98
160	111	66	88	8,9	5,1	1715	891	58,3	3400
8	535	18	40	5,8	6,0	225	696	72,9	5,7
40	446	23	60	7,2	6,7	420	757	69,2	14
109	234	47	80	8,4	5,7	1117	839	63,3	1268
20	500	20	48	6,3	6,3	301	720	71,4	8,8
45	427	25	62	7,3	6,6	470	764	68,8	25
61	372	30	68	7,7	6,4	610	784	67,6	57
20	500	20	48	6,4	6,3	301	720	71,4	9
53	400	27	65	7,5	6,5	538	774	68,2	41
10	529	18	41	5,9	6,1	237	700	72,6	6

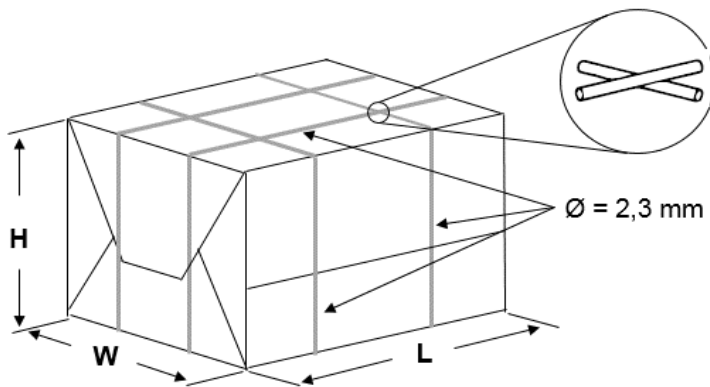
Typical values are averages from all mill quality control samples during 2016. They are given in good faith to represent mill performance and do not constitute contractual undertaking. Values in the table are mean (indicative) values from pulp testing with Voith-Sulzer refining, using standard water. Specific Edge Load 0,5 J/m, ISO testing methods (H 50%, 23 °C, 60 gr/m² sheets).

UPM Betula TCF

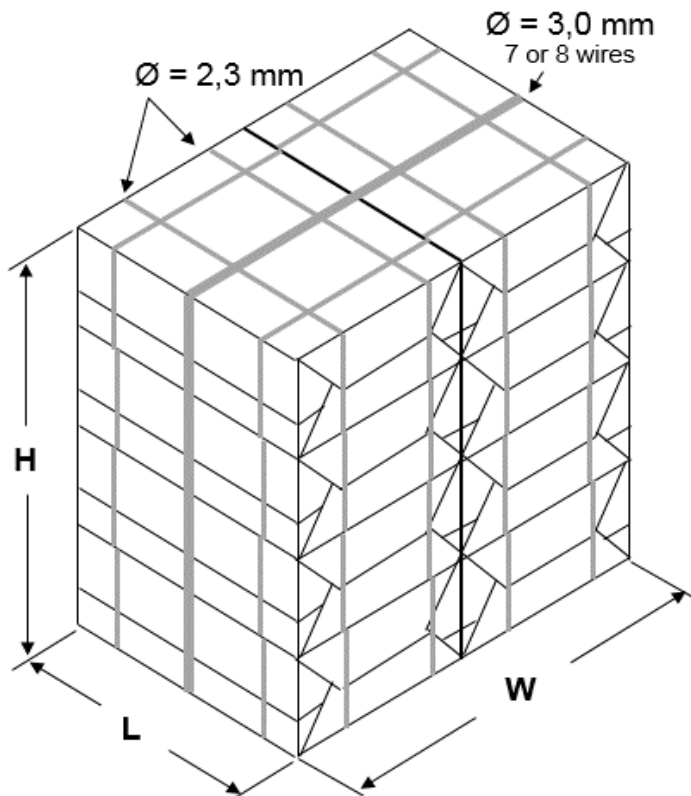
Bale marking

	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.

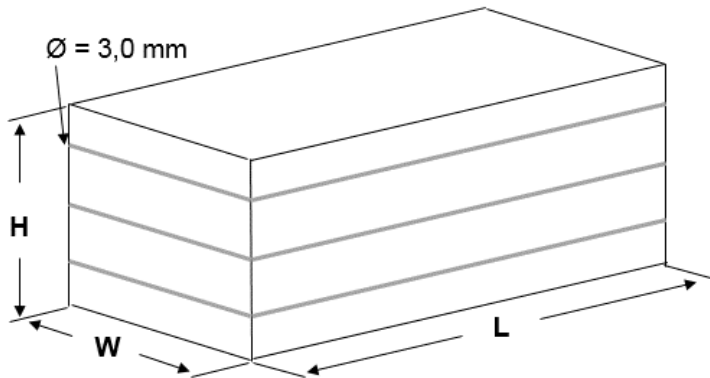
Standard bale unit configuration

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

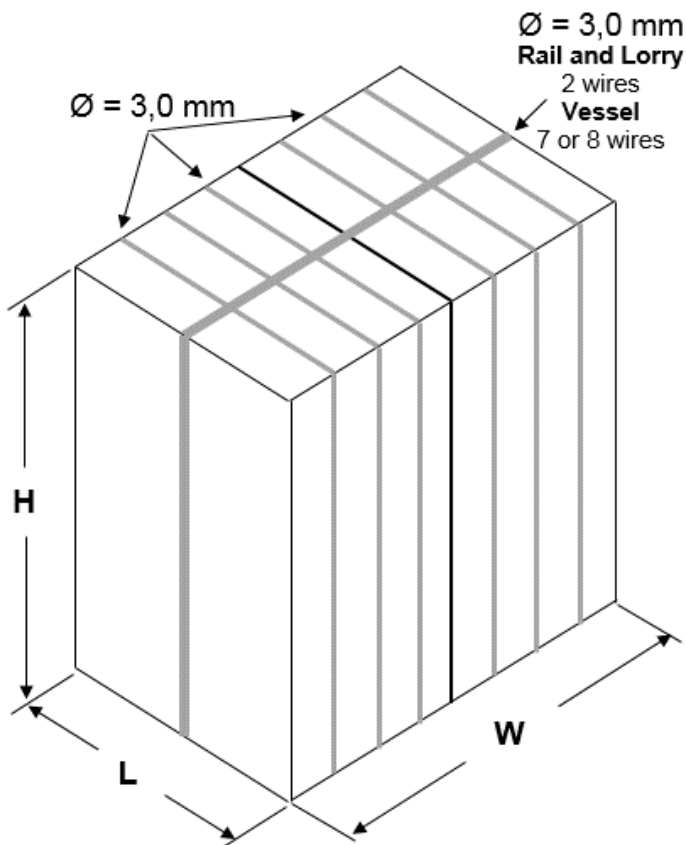
Big bale



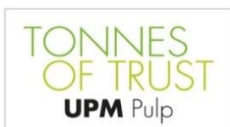
Sheets	
Size:	84 x 73 cm
Grammage:	850 g/m ²

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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