

# TECHNICAL DATA SHEET

## UPM Betula

ECF Bleached Birch Kraft Pulp

Pulp mill: UPM Kaukas

Date of issue: 12.6.2017

### PULP CHARACTERISTICS

	Typical value	Spec
Brightness, ISO % ISO 2470-1	89	≥ 88
Impurities, mm <sup>2</sup> /kg ISO 5350	3	
Extractives, % SCAN-CM 49:93	0,2	≤ 0,4
Ash content, % ISO 1762	0,4	≤ 0,7
pH ISO 6588	6	5,0-7,0

### FIBRE CHARACTERISTICS

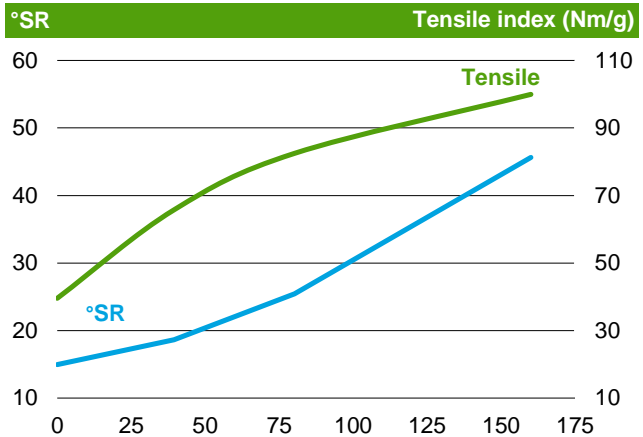
	Typical value
Fibre length, mm Metso FS5	1,1
Coarseness, mg/m Metso FS5	0,08

### RAW MATERIAL

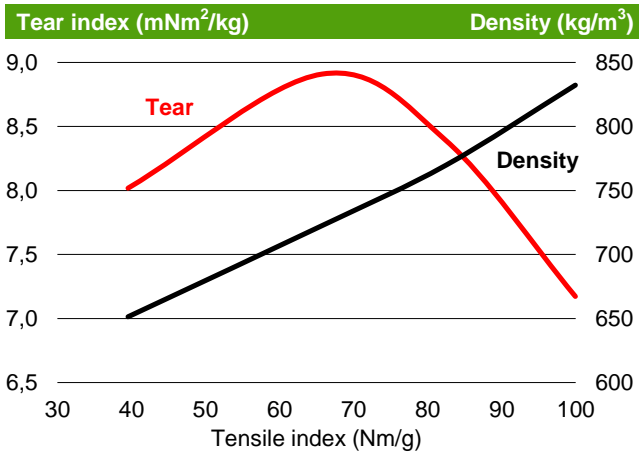
#### Hardwood

Birch, Aspen and Sawdust

### REFINABILITY



### TEAR AND DENSITY AT TENSILE

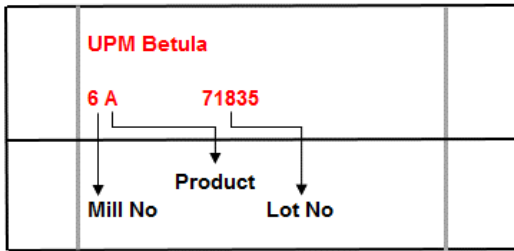


Specific Refining Energy	CSF	SR number	Tensile index	Stiffness index	Tear index	Scott Bond	Density	Opacity	Air res.
kWh/t	ml		Nm/g	Nm/g	mNm <sup>2</sup> /g	J/m <sup>2</sup>	kg/m <sup>3</sup>	%	s
0	613	15	40	5,7	8,0	156	651	73,2	2,7
39	541	19	66	7,4	8,9	333	723	69,4	7,8
80	430	25	82	8,3	8,4	535	770	67,0	33
160	228	46	100	9,2	7,2	1047	832	62,7	495
1	612	15	40	5,8	8,0	159	653	73,1	3
31	557	18	60	7,1	8,7	294	707	70,2	7
74	446	24	80	8,2	8,5	505	763	67,3	29
48	519	20	69	7,6	8,8	373	732	68,9	13
78	435	25	82	8,3	8,4	523	768	67,1	23
98	384	30	86	8,5	8,1	650	784	66,0	137
55	500	21	72	7,8	8,7	408	740	68,5	17
92	400	28	85	8,5	8,2	611	779	66,3	101
27	564	17	57	6,9	8,6	277	700	70,6	6

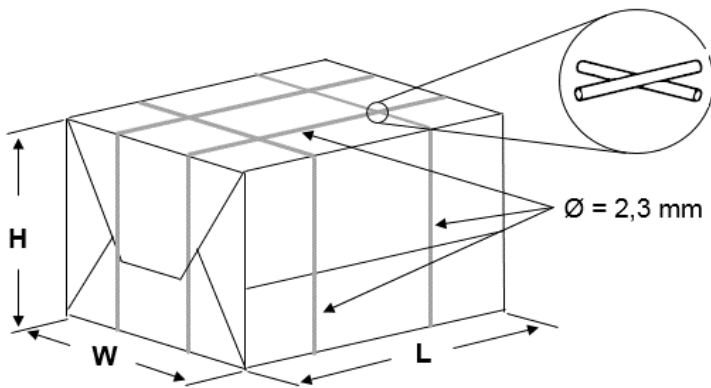
Typical values are averages from all mill quality control samples during 2016. They are given in good faith to represent mill performance and do not constitute contractual undertaking. Values in the table are mean (indicative) values from pulp testing with Voith-Sulzer refining, using standard water. Specific Edge Load 0,5 J/m, ISO testing methods (H 50%, 23 °C, 60 gr/m<sup>2</sup> sheets).

## UPM Betula Kaukas

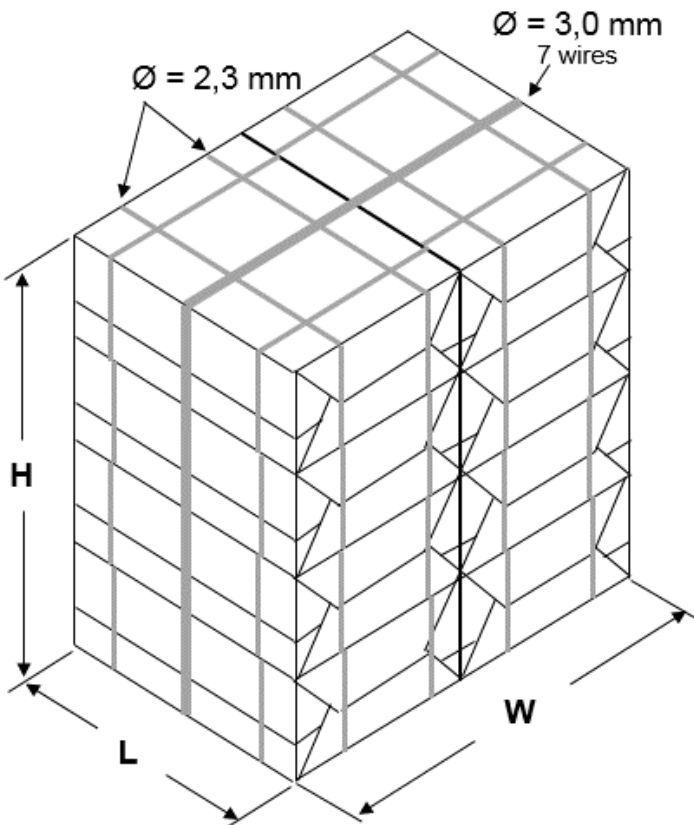
### Bale marking



### Standard bale



### Standard bale unit configuration



### Sheets

<b>Size:</b>	85 x 70 cm
<b>Grammage:</b>	850 g/m <sup>2</sup>

### Standard bale

<b>Size:</b>	L =	89 cm
	W =	73 cm
	H =	43,5 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

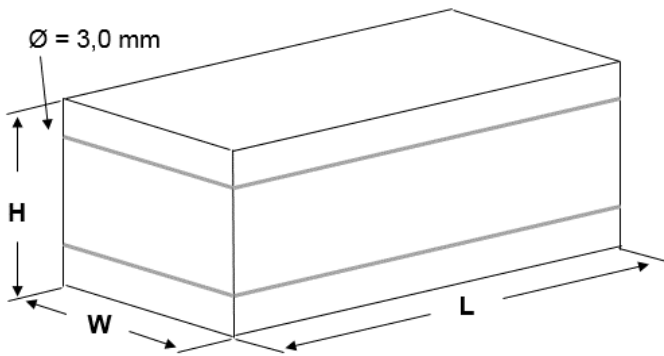
<b>Size:</b>	L =	89 cm
	W =	146 cm
	H =	175 cm

**Weight:** 2000 kg (8 x 250 kg)

**Wires:** 7 galvanized wires, diameter 3,0 mm

## UPM Betula Kaukas

### Big bale



### Sheets

<b>Size:</b>	85 x 70 cm
<b>Grammage:</b>	850 g/m <sup>2</sup>

### Big bale

<b>Size:</b>	L =	175 cm
	W =	87 cm
	H =	72cm

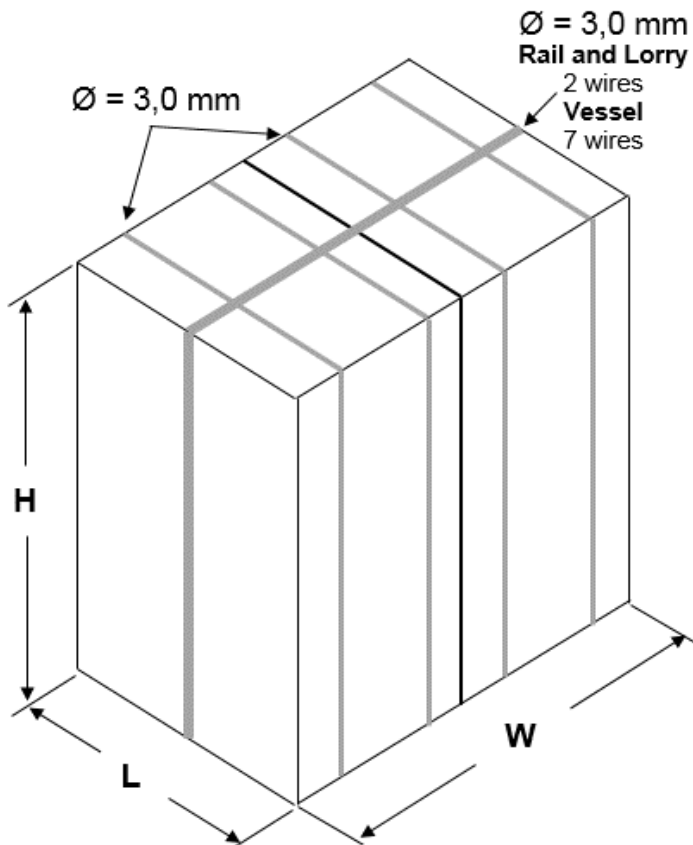
**Weight:** 1000 kg

**Wrapping:** No wrapping

**Markings:** Red watersoluble inkjet printing.  
Country, company name, product code and bale number on both sides.

**Wires:** 2 galvanized wires,  
diameter 3,0 mm

### Big bale unit configuration



### Big bale unit configuration

#### Big bale units

<b>Size:</b>	L =	87 cm
	W =	144 cm
	H =	175cm

**Weight:** 2000 kg (2 x 1000 kg)

**Wires:** Vessel 7 galvanized wires,  
Rail and Lorry 2 wires  
diameter 3,0 mm