

# TECHNICAL DATA SHEET

## UPM Conifer

ECF Bleached Northern Softwood Kraft Pulp  
Pulp mill: UPM Pietarsaari

Date of issue: 3.12.2021

### PULP CHARACTERISTICS

|   | Typical value | Spec    |
|---|---------------|---------|
| Brightness, ISO %<br>ISO 2470-1               | 89            | ≥ 88    |
| Impurities, mm <sup>2</sup> /kg<br>ISO 5350-2 | 2             |         |
| Extractives, %<br>ISO 14453                   | 0,04          | ≤ 0,15  |
| Ash content, %<br>ISO 1762                    | 0,1           | ≤ 0,2   |
| pH<br>ISO 6588-2                              | 5,7           | 5,0-7,0 |

### FIBRE CHARACTERISTICS

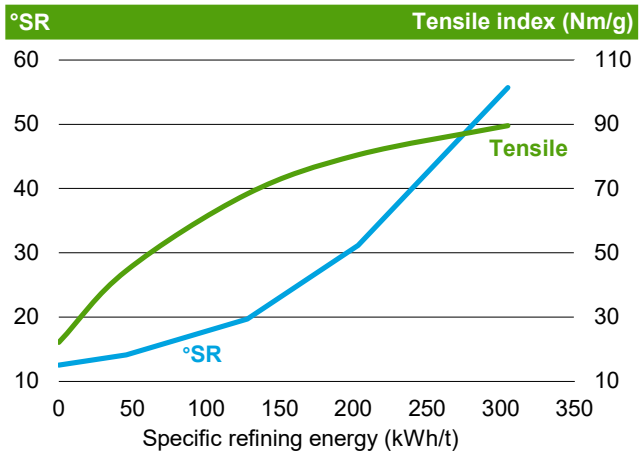
|                               | Typical value |
|-------------------------------|---------------|
| Fibre length, mm<br>Metso FS5 | 2,12          |
| Coarseness, mg/m<br>Metso FS5 | 0,15          |

### RAW MATERIAL

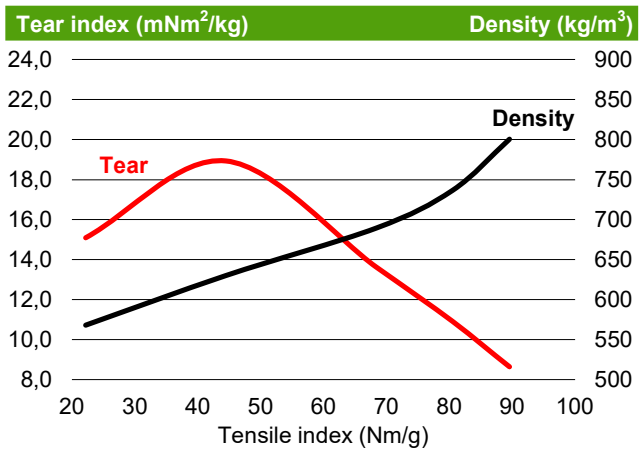
#### Softwood

Pine (*Pinus Silvestris*), Spruce (*Picea Abies*)

### 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          | kNm/g           | mNm <sup>2</sup> /g | J/m <sup>2</sup> | kg/m <sup>3</sup> | %       | s        |
| 0                        | 715 | 13        | 22            | 3,6             | 15,1                | 103              | 568               | 72,3    | 1,3      |
| 46                       | 681 | 14        | 44            | 5,7             | 18,9                | 205              | 630               | 68,5    | 1,5      |
| 128                      | 547 | 20        | 68            | 7,5             | 13,6                | 403              | 689               | 65,1    | 5        |
| 203                      | 368 | 31        | 80            | 8,4             | 10,9                | 718              | 737               | 62,3    | 58       |
| 305                      | 164 | 56        | 90            | 9,0             | 8,6                 | 1331             | 800               | 59,2    | 1571     |
| 65                       | 650 | 15        | 50            | 6,1             | 17,7                | 251              | 644               | 67,8    | 2,3      |
| 140                      | 518 | 22        | 70            | 7,6             | 13,3                | 456              | 696               | 64,6    | 13       |
| 305                      | 168 | 55        | 90            | 9,0             | 8,6                 | 1320             | 798               | 59,2    | 1550     |
| 132                      | 548 | 20        | 69            | 7,5             | 13,6                | 410              | 694               | 65,0    | 5        |
| 164                      | 465 | 25        | 74            | 7,9             | 12,4                | 550              | 712               | 63,8    | 16       |
| 197                      | 385 | 30        | 80            | 8,3             | 11,2                | 690              | 732               | 62,6    | 55       |

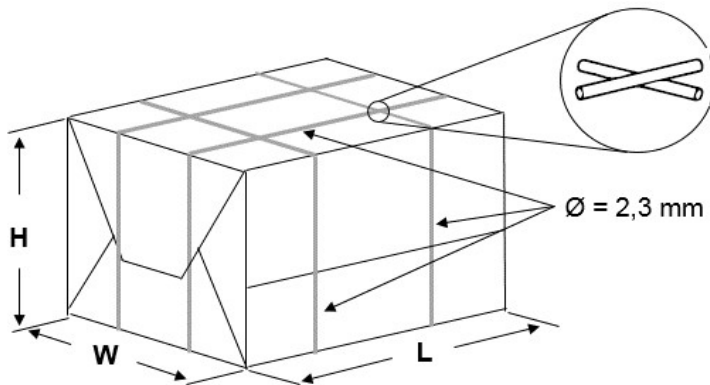
Typical values are averages from all mill quality control samples during H2 2020 - H1 2021. They are given in good faith to represent mill performance and do not constitute contractual undertaking. Values in the table are mean (indicative) values from pulp testing with Voith-Sulzer refining, using standard water. Specific Edge Load 2,5 J/m, ISO testing methods (H 50%, 23 °C, 60 gr/m<sup>2</sup> sheets).

## UPM Conifer Pietarsaari

### Bale marking

|  |             |             |        |
|--|-------------|-------------|--------|
|  | UPM Conifer | NBSK        |        |
|  | 8 H         | 54504 - 001 | FIN    |
|  | Mill No     | Product     | Lot No |

### Standard bale



### Sheets

**Size:** 86 x 70 cm

**Grammage** 1250 g/m<sup>2</sup>

### Standard bale

**Size:** L = 90 cm

W = 73 cm

H = 42,5 cm

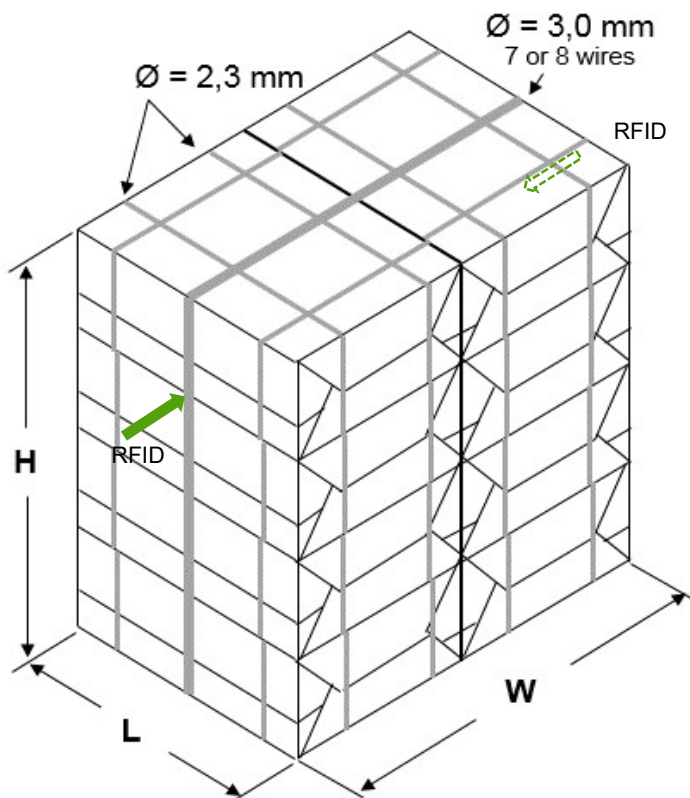
**Weight:** 250 kg

**Wrapping:** Pulp sheets (unwrapped on demand)

**Markings:** Blue 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 unit configuration

#### Standard bale units

**Size:** L = 90 cm

W = 146 cm

H = 170cm

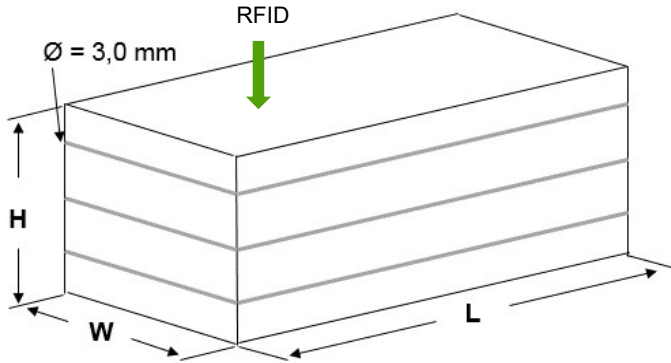
**Weight:** 2000 kg (8 x 250 kg)

**Wires:** 7 or 8 galvanized wires,  
diameter 3,0 mm

**RFID:** 1 tag per ton of pulp (traceability)

## UPM Conifer Pietarsaari

### Big bale



#### Sheets

**Size:** 86 x 70 cm

**Grammage** 1250 g/m<sup>2</sup>

#### Big bale

**Size:** L = 170 cm

W = 88 cm

H = 72cm

**Weight:** 1000 kg

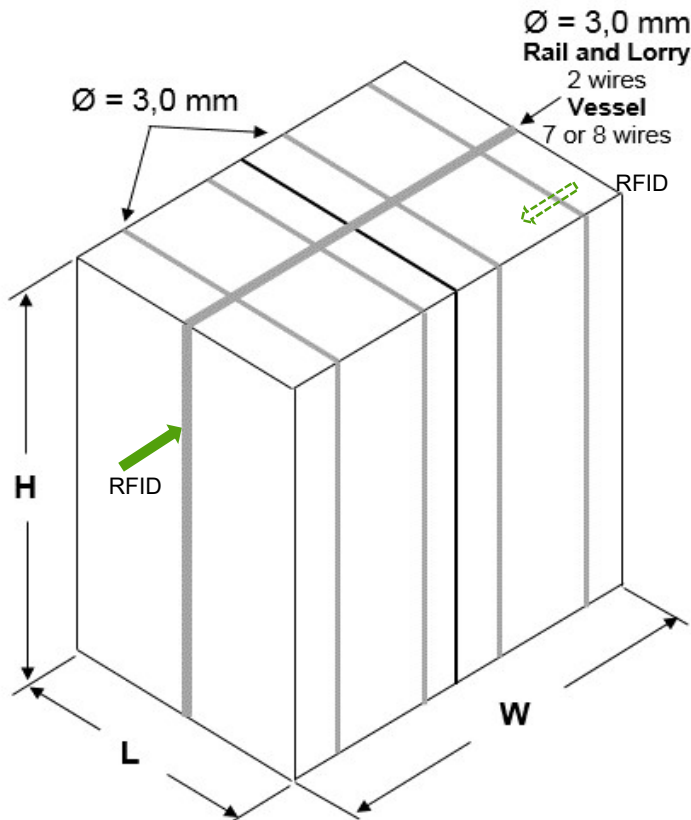
**Wrapping:** No wrapping

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

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

**RFID:** 1 tag per ton of pulp (traceability)

### Big bale unit configuration



#### Big bale unit configuration

##### Big bale units

**Size:** L = 88 cm

W = 144 cm

H = 170cm

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

**Wires:** Vessel 7 or 8 galvanized  
wires, Rail and Lorry 2 wires  
diameter 3,0 mm

**RFID:** 1 tag per ton of pulp (traceability)

#### UPM-Kymmene Corporation

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