

Botnia Nordic CTO KMI

Crude Tall Oil

Date: 30/05/2018

Raw material

Pine (pinus silvestris)	50-70 %
Spruce (picea abies)	10-20 %
Birch (betula verrucosa)	20-35 %

Typical product characteristics

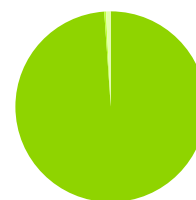
Property	Value	Method
Acid number	Typical 151 mg KOH/l (variance 148 -154)	SCAN-T 11:72
Resin acid	Typical 26 % (variance 24-27)	SCAN-T 14:78
Water content	Typical 0.5 % (variance 0.2-0.7)	ASTM D 890-98
Soap number	Typical 0.0 mg KOH/l	PCTM 13

MILL CERTIFICATES

ISO 14001	Quality management system	✓
ISO 9001	Quality system	✓
PEFC™ COC	Chain of Custody, controlled sources	✓
FSC® COC/CW	Chain of Custody, controlled wood	✓
ISO 50001	Energy management system	✓
OHSAS 18001	Health and safety management system	✓
ISO 22000	Food safety management system	✓

ORIGIN OF RAW MATERIAL

Finland	98,9 %
Russia	0.3 %
Sweden	0.8 %
PEFC	93 %
FSC	4 %



■ Finland
■ Russia
■ Sweden



Metsä Fibre Oy, Kemi mill
Address: FI-94 200 Kemi, Finland