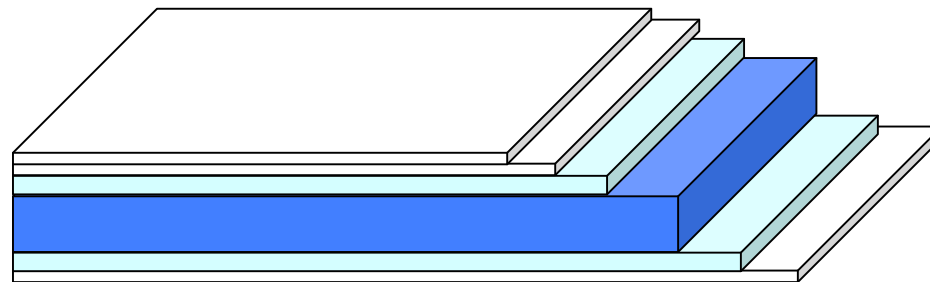




Cellokarta HB

Grammage, g/m ²		ISO 536	± 4%	170	200	215	250	270	300	325	400
Thickness μ m		ISO 534	± 4%	220	275	305	375	400	450	505	630
Bending stiffness CD mNm	Taber 15°	ISO 2493	± 15%	1.7	3.0	4.0	7.2	9.0	12.0	14.5	24.0
Bending stiffness MD mNm	Taber 15°	ISO 2493	± 15%	3.5	6.5	8.5	13.5	17.0	23.0	28.7	46.0
Moisture content %		ISO 287	± 1.0	7.5	7.5	7.5	8.0	8.0	8.0	8.5	8.5
Smoothness top μ m	PPS10	ISO 8791-4		1.0	1.0	1.0	1.2	1.2	1.2	1.2	1.2
Brightness top %	Illumination C/2°	ISO 2470	± 1.0	88	88	88	88	88	88	88	88
Brightness back %	Illumination C/2°	ISO 2470	± 2.0	85	85	85	84	84	84	84	84
Colour CIELAB L* top	Illumination C/2°	ISO 5631	± 1.0	94.7	94.7	94.7	95	95	95	95	95
Colour CIELAB a* top	Illumination C/2°	ISO 5631	± 0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Colour CIELAB b* top	Illumination C/2°	ISO 5631	± 1.0	-0.2	-0.2	-0.2	-1	-1	-1	-1	-1
Gloss %	Hunter 75°	TAPPI T 480	± 5	55	55	55	37	37	37	37	37

Double clay coating
Bleached chemical pulp
Bleached CTMP pulp
Bleached chemical pulp
Blade clay coating



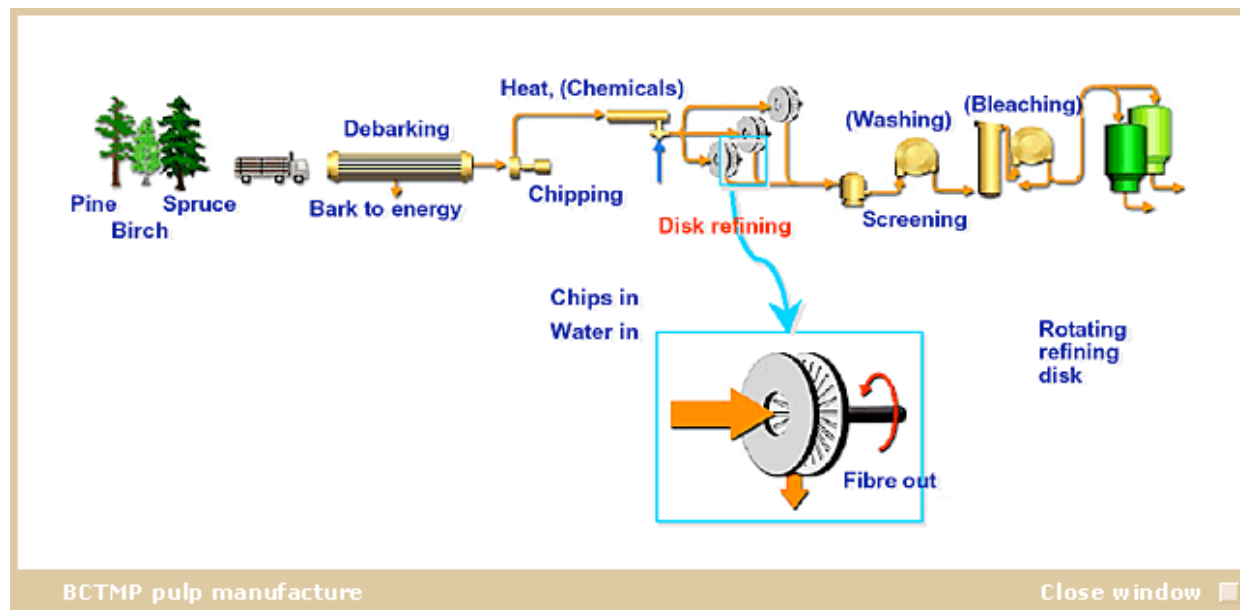
High bulk with chemi-thermo-mechanical pulping

Chemi-thermo-mechanical pulp (CTMP) is made from wood chips that have been chemically and thermally pre-softened, then ground in disc refiners.

CTMP fibres are more flexible and show more bonding ability than groundwood pulp fibres, resulting in lower dusting characteristics of the finished grade

CTMP pulps used in cellokarta are bleached (BCTMP) and attain excellent whiteness levels

BCTMP pulps used in cellokarta use a specific mix of long fibre timbers that ensure the grade retains both critical strength characteristics & high yields required in packaging applications.





Certificates, labels and statements

Based on the investigations made by KCL, Finland, **Cellokarta** meets the following regulations in terms of its composition:

- EC Directive 89/109 EEC and its amendments
- European Parliament and Council Directive 94/62/EC on packaging and packaging waste
- Law concerning the handling of foodstuffs, tobacco products, cosmetic products and other commodities - Foodstuffs and Necessities Act - 25 February 1998, §§ 30 and 31
- BfR recommendation no. XXXVI, 1 January 2002, Germany; *with following limitations*
- Ministry of Trade and Industry decision 143/93, Finland (KTMP); *with following limitations*
BfR and KTMP : the board grade equal to the tested sample, in respect of its chemical composition is suitable as packaging material for dry and non-fatty foods.
- FDA regulations, 21 CFR, parts 170-189, 1 April 2002, USA; with following limitations: the board grade equal to the tested sample is suitable as packaging material for dry and aqueous and fatty food grades I, II, IV-B, VI and VII-B, which are listed in Table 21 CFR 176.170(c).
- EN 71-3:1994, Safety of toys - Part 3: Migration of certain elements.
- EN 648:1993, Determination of the fastness of fluorescent whitened paper and board.
- EN 13432:2001, Annex A. Table A.1. Packaging. Requirements for packaging recoverable through composting and biodegradation.
- The microbiological purity of the above board was also tested using methods ISO 8784-1 and DIN 54378 and found to be microbiologically pure.
- Samples of the board were tested sensorically. The results indicate that the board tested is not inclined to bring about a deterioration in the organoleptic characteristics of food being in contact with the board.

Content of heavy metals and toxic and hazardous substances

The content of heavy metals and other hazardous chemicals does not exceed the regulated values as shown in the following table:

Element	mg/kg on dry substance (105°C)		Element	mg/kg on dry substance (105°C)	
	Cellokarta	Regulated limit		Cellokarta	Regulated limit
Zn	6,1	150	Cr	13	50
Cu	0,6	50	Mo	<0,3	1
Ni	10	25	Se	<0,2	0,75
Cd	<0,01	0,5	As	0,6	5
Pb	1,1	50	F	22	100
Hg	<0,08	0,5			