

Physical Wood and Kraft Pulp Properties

Property	Unit	SOFTWOOD			
		SPF	SPRUCE	PINE	DFIR
Wood Density	Oven-dry kg/green m ³	410	436	408	450
Fibre Length	mm	3.4	3.3	3.5	3.9
Pulp Yield Unbleached kraft	Based on % OD wood	47	47	47	47
Bulk	cc/g	1.34	1.34	1.34	1.58
Tensile (Breaking Length)	km	14.5	14.3	14.9	10.7
Burst Index	kPa.m ² /g	11.1	11.1	11.1	7.5
Tear Factor	mN.m ² /g	118	118	118	165

Glossary

Bulk	Ratio of thickness to basis weight of paper. Basis weight is the weight per unit area of paper. A dense sheet has low bulk.
Tensile	The amount of force required to break a narrow strip of paper when both the length of the strip and rate of loading rate are specified. The breaking length is the length of paper which will just support its own weight when hung freely from one end.
Burst	The pressure required to rupture a paper sample clamped over a rubber diaphragm.
Tear	This is determined by using a falling pendulum to continue a tear in the paper sample. The loss of energy is related to the force required to continue the tear.
Fibre Length	The length of the fibre specific to the species of wood.
Wood Density	Relates to the oven-dry weight per volume of green wood.
SPF	Spruce/Pine/Balsam Fir mixture.

Additional references – web links

- a. www.paprican.ca
- b. www.econotech.com

