

4. Wood chips quality requirements

- 4.1, The final product shall meet the technical specifications of the corresponding quality class defined in table I.
- 4.2, The final product shall meet one of the main fraction classes (P classes) and the fine fraction classes (F classes) showed in table II.
- 4.3, Compliance of the final product with the requirements of this Standard shall be verified through analyses carried out on a sample taken by the inspector during the on-site inspection¹.

Table I
Wood chips technical specifications related to the quality classes covered by the scope of GoodChips® certification

Property class Analysis method (last version)	Unit	A				B			
		1 extra-dry	1	2	3	1	2	3	4
Origin and source ^a		Virgin wood ^b • Without stumps, roots and bark ^c • Without segregated wood from gardens, parks, roadside maintenance, vineyards, fruit orchards and driftwood from freshwater Chemically untreated wood residues and by-products from wood processing industry • Without bark				Virgin wood ^d • without bark Chemically untreated wood residues on by-products from wood processing industry • without bark	Virgin wood Chemically untreated wood residues on by-products from wood processing industry Segregated wood from gardens, parks, roadside maintenance, vineyards, fruit orchards and driftwood from freshwater	Chemically untreated wood residues on by-products from wood processing industry Chemically untreated used wood ^e	Chemically treated uncontaminated wood residues, by-products, fibres and wood constituents from wood processing industry ^f
Particle size, P ISO 17827-1	mm	P315 or P455 (Table II)		from P315 to P63		To be selected from Table II			
Fine fraction, F ISO 17827-1	<3,15 mm w-%	F05 or F10 (Table II)		from F05 to F20 (Table II)		To be selected from Table II			
Moisture, M ISO 18134-1, ISO 18134-2	w-%	M10 ≤ 10	M25 ≤ 25	M35 ≤ 35	M50 ≤ 50	M60 ≤ 60 M30 ≤ 30			
Ash, A ISO 18122	w-% dry	A1.0 ≤ 1.0	A1.0 ≤ 1.0	A1.5 ≤ 1.5	A1.5 ≤ 1.5	A3.0 ≤ 3.0	A7.0 ≤ 7.0	A4.0 ≤ 4.0	A5.0 ≤ 5.0
Nitrogen, N ISO 16948	w-% dry	Not to be specified ^g (Typical values are given in Annex B of ISO 17225-1, tables B.1 and B.3)				N1.0 ≤ 1.0	N1.0 ≤ 1.0	N1.5 ≤ 1.5	N1.0 ≤ 1.0
Sulfur, S ISO 16994	w-% dry					S0.1 ≤ 0.1	S0.1 ≤ 0.1	S0.1 ≤ 0.1	S0.1 ≤ 0.1
Chlorine, Cl ISO 16994	w-% dry					Cl0.05 ≤ 0.05	Cl0.05 ≤ 0.05	Cl0.1 ≤ 0.1	Cl0.1 ≤ 0.1
Arsenic, As ISO 16968	mg/kg dry					≤ 1	≤ 1	≤ 4	≤ 4
Cadmium, Cd ISO 16968	mg/kg dry					≤ 2.0	≤ 2.0	≤ 2.0	≤ 2.0
Chromium, Cr ISO 16968	mg/kg dry					≤ 20	≤ 20	≤ 30	≤ 20

^a Blends of different classes of origin and source inside each quality class are allowed

^b Excluding Short rotation coppice, if reason to suspect contamination of land or if planting has been used for the sequestration of chemicals or growing trees have been fertilized by sewage sludge (issued from waste water treatment or chemical process)

^c To be considered as bark obtained from debarking operations

^d Excluding Segregated wood from gardens, parks, roadside maintenance, vineyards, fruit orchards and driftwood from freshwater

^e Post-consumer/post-society wood; natural or merely mechanically processed wood, contaminated only to an insignificant extent during use by substances that are not normally found in wood in its natural state (for example pallets, transport cases, boxes, wood packages, cable reels, construction wood)

^f Chemically treated wood by-products and residues from wood processing industry is allowed in B4 as long as it does not contain heavy metals or halogenated organic compounds as a result of treatment with wood preservatives or coating

^g The threshold values (N, S, Cl and minor elements) for A classes are not required as these classes of fuels are chemically untreated wood residues or from virgin material, which has been grown in uncontaminated land and therefore the likelihood of contamination is very low

Copper, Cu ISO 16968	mg/kg	Not to be specified ^g (Typical values are given in Annex B of ISO 17225-1, tables B.1 and B.3)	≤ 30	≤ 30	≤ 50	≤ 30
Lead, Pb ISO 16968	mg/kg		≤ 20	≤ 20	≤ 30	≤ 20
Mercury, Hg ISO 16968	mg/kg		≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1
Nickel, Ni ISO 16968	mg/kg		≤ 10	≤ 10	≤ 10	≤ 10
Zinc, Zn ISO 16968	mg/kg		≤ 100	≤ 100	≤ 100	≤ 100
Net Calorific Value, Q ISO 18125	MJ/kg or kWh/kg as received	Minimum value to be stated	Minimum value to be stated			

Table II
Wood chips particle size classes covered by the scope of GoodChips® certification

Dimensions (mm)				
	Main fraction ^a (minimum 60 w-%), mm	Coarse fraction w-% (length of particle)	Max. length of particles ^b	Max. cross sectional area of the coarse fraction ^c
P315	3.15 mm < P ≤ 31.5 mm	≤ 6 % > 45 mm	≤ 150 mm	≤ 4 cm ²
P31	3.15 mm < P ≤ 31.5 mm	≤ 6 % > 45 mm	≤ 200 mm	
P455	315 mm < P ≤ 45 mm	≤ 10 % > 63 mm	≤ 200 mm	≤ 6 cm ²
P45	3.15 mm < P ≤ 45 mm	≤ 10 % > 63 mm	≤ 350 mm	
P63	3.15 mm < P ≤ 63 mm	≤ 10 % > 100 mm	≤ 350 mm	
P100	3.15 mm < P ≤ 100 mm	≤ 10 % > 150 mm	≤ 350 mm	
Fine fraction, F (<3,15 mm w-%)				
F05	≤ 5 %			
F10	≤ 10 %			
F15	≤ 15 %			
F20	≤ 20 %			
F25	≤ 25 %			
F30	≤ 30 %			
F30+	> 30 (maximum value to be stated)			