

**Quality Parameters for Big Tree Planting soil mix 1
for open, non-coverable planting holes (RAL-GZ 250/7-1)**



Quality parameters		Range value		
1 Physical properties				
1.1	Granulometric distribution		The granulation curve must lie in the set granular distribution range (see picture 1)	
		mm	0/11 to 0/32	
		mm	≥ 30 mass-% d = 0,063 - 2,0	
1.2	Water permeability k_f	m/s	≥ $5,0 \times 10^{-6}$ (corresponds to ≥ $5,0 \times 10^{-4}$ cm/s or ≥ 0,3 mm/min)	
1.3	Water capacity	Vol.-%	≥ 25	
1.4	Air capacity at WK max. or	Vol.-%	≥ 10	
1.5	at pF 1,8 (if value below 1.4)	Vol.-%	≥ 15	
1.6	Impurities			
1.6.1	mineral impurities	mass -%	≤ 0,5	
1.6.2	organic impurities	mass-%	≤ 0,1	
2 Chemical properties				
2.1	Organic matter	mass-% DM	1 - 4	
2.2	pH value (CaCl ₂)		5,0 - 8,5	
2.3	Salt content			
2.3.1	Water extraction	mg/100 g	≤ 150	
2.3.2	Gypsum extraction (if necessary)	mg/100 g	≤ 100	
2.4	Content on soluble nutrients		(keeping of the tolerances of the German fertilizer ordinance)	
2.4.1	NH ₄ -N + NO ₃ -N (CaCl ₂ or CAT)	mg/l	to be declared; method must be named	
2.4.2	P ₂ O ₅ (CAL or CAT)	mg/l	to be declared; method must be named	
2.4.3	K ₂ O (CAL or CAT)	mg/l	to be declared; method must be named	
2.4.4	Mg (CAL or CAT)	mg/l	to be declared; method must be named	
3 Heavy metals			Values for labelling ¹⁾	Limiting values ²⁾
3.1	Arsenic (As)	[mg/kg DM]	20	40
3.2	Lead (Pb)	[mg/kg DM]	100	150
3.3	Cadmium (Cd)	[mg/kg DM]	1,0	1,5
3.4	Chromium (Cr)	[mg/kg DM]	300	-
3.5	Cobalt (Co)	[mg/kg DM]	40 (0,004%)	120
3.6	Copper (Cu)	[mg/kg DM]	500 (0,05%)	-
3.7	Nickel (Ni)	[mg/kg DM]	40	80
3.8	Mercury (Hg)	[mg/kg DM]	0,5	1,0
3.9	Thallium (Tl)	[mg/kg DM]	0,5	1,0
3.10	Zinc (Zn)	[mg/kg DM]	1000 (0,1%)	-

¹⁾ Values for labelling according to German fertilizer ordinance

²⁾ Limiting values for labelling according to German fertilizer ordinance

^{*)} The pH value of the substrate must be adjusted to the trees to be planted! The pH value must be declared

Granulometric distribution for Substrates for Tree Planting (Type 1)
Quality Assurance for Substrates for Tree Planting RAL-GZ 250/7

