

## Quality Parameters for Expanded Clay as a Growing Medium (RAL-GZ 250/4)



Quality Parameters	Range of Values			
	Type of expanded clay <sup>2)</sup>			
	2 - 4 mm	4 - 8 mm	8 - 16 mm	
<b>1 Physical properties</b>				
1.1 Granulation				
1.1.1 Fraction of undersized particles	weight %	≤ 15		
1.1.2 Fraction of oversized particles	weight %	≤ 15		
1.2 Fragmented expanded clay <sup>1)</sup>	weight %	≤ 10		
1.3 Grain shape	weight %	Predominant Grain shape (broken, kidney-shaped or spherical) must be declared		
1.4 Bulk density, dry	kg/m <sup>3</sup>	≥ 360	≥ 330	≥ 300
1.5 Capillary rise (min)	cm	≥ 5		
Capillary rise (max)	cm			≤ 12
<b>2 Chemical properties</b>				
2.1 pH value		≥ 5.5		
2.2 Salinity	g/l	≤ 1.25		
2.3 Sodium (Na)	mg/l	≤ 50		
2.4 Chloride (Cl)	mg/l	≤ 50		
2.5 Fluoride (F)	mg/l	≤ 5 <sup>3)</sup>		
2.6 Boron (B)	mg/l	to be analysed		
2.7 Zinc (Zn)	mg/l	to be analysed		
2.8 Copper (Cu)	mg/l	to be analysed		
2.9 Heavy Metals (Total amount)				
2.9.1 Arsenic (As)	[mg/kg DM]	≤ 40		
2.9.2 Lead (Pb)	[mg/kg DM]	≤ 150		
2.9.3 Cadmium (Cd)	[mg/kg DM]	≤ 1,5		
2.9.4 Chromium (Cr)	[mg/kg DM]	≤ 300		
2.9.5 Nickel (Ni)	[mg/kg DM]	≤ 80		
2.9.6 Mercury (Hg)	[mg/kg DM]	≤ 1		
2.9.7 Thallium (Tl)	[mg/kg DM]	≤ 1		
<b>3 Biological properties</b>				
Growth inhibitors		Free of growth inhibitors		
<b>4 Deklaration</b>				
Declaration after the fertilizers ordinance				
<sup>1)</sup> For mixtures containing fragmented expanded clay (> 10 weight %), the proportion must be declared. <sup>2)</sup> Special particle sizes must be allocated to one of the three types of expanded clay in consultation with the quality commission. The declaration of the particle size must reflect the reference values of the standard sets of DIN EN 13055-1:2002 sieves. Compliance with these values is checked as part of quality assurance. <sup>3)</sup> For fluoride contents of ≥ 2.5 mg/l, the following declaration is possible: "Not for fluoride-sensitive plants."				