

GROUP GRANULAR ZEOLITE



DEFINITION AND COMPOSITION:

A thermally activated and processed raw material (natural zeolite) primarily composed of sedimentary clinoptilolite - a crystalline hydrated aluminium silicate of alkaline metals and alkaline soil metals.

DECLARED QUALITATIVE PARAMETERS:

Property		Zeocem 0-0.2		Zeocem 0.2-0.5		Zeocem 0.5-1		Zeocem 1-2.5	
		Class 1		Class 2		Class 3		Class 4	
		Company Standard 02/11	Ø (min., max.)	Company Standard 02/11	γ Ø (min., max.)	Company Standard 02/11	Ø (min., max.)	Company Standard 02/11	Ø (min., max.)
Granularity (%)	0.1 mm								
	0.2 mm	Max. 20.0	4.8 (0.3-14.6)	Min. 70.0	80.1 (70.5-95.9)				
	0.5 mm			Max. 25.0	10.9 (2.5-24.8)	Min. 80.0	92.7 (80.2-99.2)		
	1.0 mm					Max. 30.0	17.8 (4.7-29.9)	Min. 80.0	93.2 (80.4-99.1)
	2.5 mm							Max. 25.0	1.7(0.1-9.1)
Ion-exchange capacity (mol/kg)		Min. 0.60	0.85 (0.72-1.02)	Min. 0.70	0.85 (0.72-1.02)	Min. 0.70	0.85 (0.72-1.02)	Min. 0.70	0.85 (0.72-1.02)
Wetness (%)		Max. 10.0	4,74 (3.22-6.72)	Max. 6.0	4.74 (3.22-6.72)	Max. 6.0	4.74 (3.22-6.72)	Max. 6.0	4.74 (3.22-6.72)
Bulk density (kg/m ³)*			700-800		800-900		800-900		800-900

* Informative data

Property		Zeocem 2.5-5.0		Zeocem 1-5		Zeocem 4-8		Zeocem 0.5-2.5	
		Class 5		Class 6		Class 7		Class 8	
		Company Standard 02/11	Ø (min., max.)	Company Standard 02/11	Ø (min., max.)	Company Standard 02/11	Ø (min., max.)	Company Standard 02/11	Ø (min., max.)
Granularity (Oversize) (%)	0.2 mm								
	0.5 mm							Min. 80.0	95.7 (86.6-99.1)
	1.0 mm			Min. 80.0	96.2 (83.7-99.7)				
	2.5 mm	Min. 80.0	87.3 (80.3-97.6)					Max. 20.0	0.6 (0-4.2)
	4.0 mm					Min. 80.0	96.6 (87.6-99.7)		
	5.0 mm	Max. 25.0	0.4 (0.0-2.8)	Max. 25.0	0.1 (0-1.0)				
	8.0 mm					Max. 25.0	0.1 (0-1.5)		
Ion-exchange capacity (mol/kg)		Min. 0.60	0.85 (0.72-1.02)	Min. 0.70	0.85 (0.72-1.02)	Min. 0.70	0.85 (0.72-1.02)	Min. 0.70	0.85 (0.72-1.02)
Wetness (%)		Max. 10.0	4.74 (3.22-6.72)	Max. 10.0	4.74 (3.22-6.72)	Max. 10.0	4.74 (3.22-6.72)	Max. 10.0	4.74 (3.22-6.72)
Absorption (%)				Min. 34.0	38.9 (34.1-49.6)			Min. 57.0	59.9 (57.0-69.8)
Bulk density (kg/m ³)*			800-900		850-1000		700-900		800-1000

* Informative data

Specific weight (specific gravity) of zeolite: 2200-2440 kg/m³



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INDUSTRY

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Property		ZeoCem 0-1		ZeoCem 0.2-1		ZeoCem 0.2-1Plus		ZeoCem 0-0.3		
		Class 9		Class 10		Class 11		Class 12		
		Company Standard 02/11	Ø (min., max.)	Company Standard 02/11	Ø (min., max.)	Company Standard 02/11	Ø (min., max.)	Company Standard 02/11	Ø (min., max.)	
Granularity (%)	0.2 mm	Min. 0.50	64.7 (50.8-87.0)	Min. 90.0	95.0 (90.1-98.6)	Min. 70.0	Product was not produced in the year 2020	Product was not produced in the year 2020		
	0.3 mm									
	0.5 mm									
	1.0 mm	Max. 20.0	6.8 (0.7-16.6)	Max. 5.0	1.4 (0.2-3.3)	Max. 25.0				
	1.25 mm			Max. 0	0					
	4.0 mm									
	5.0 mm									
8.0 mm										
Ion-exchange capacity (mol/kg)		Min. 0.70	0.85 (0.72-1.02)	Min. 0.70	0.85 (0.72-1.02)	Min. 0.70		Min. 0.60		
Wetness (%)		Max. 10.0	4.74 (3.22-6.72)	Max. 10.0	4.74 (3.22-6.72)	Max. 10.0		Max. 10.0		
Bulk density (kg/m ³)*			800-1050							

* Informative data

Qualitative parameter	Legislative	Validity	Limit value	Practice
				Ø (min., max.)
Heavy metal content				
Pb content (mg/kg)	Regulation 577/2005	Soil adjuvants	Max. 50.0	10.88 (8.00-14.69)
Cd content (mg/kg)	Regulation 577/2005	Soil adjuvants	Max. 2.00	0.0174 (0.0100-0.0281)
As content (mg/kg)	Regulation 577/2005	Soil adjuvants	Max. 10.0	1.01 (0.63-1.20)
Hg content (mg/kg)	Regulation 577/2005	Soil adjuvants	Max. 1.00	0.0254
Cr content (mg/kg)	Regulation 577/2005	Soil adjuvants	Max. 100	3.57 (2.41-4.96)
Chemical analysis				
SiO ₂ content (%)	Company Standard 02/11	Granular zeolite	65.0-71.3	70.37 (69.3-71.2)
Al ₂ O ₃ content (%)	Company Standard 02/11	Granular zeolite	11.5-13.1	11.98 (11.01-12,62)
Fe ₂ O ₃ content (%)	Company Standard 02/11	Granular zeolite	0.7-2.5	1.76 (1.59-2.07)
CaO content (%)	Company Standard 02/11	Granular zeolite	2.7-5.2	3.57 (3.51-3.86)
MgO content (%)	Company Standard 02/11	Granular zeolite	0.25-1.2	0.31 (0.25-0.50)

Specific weight (specific gravity) of zeolite: 2,200-2,440 kg/m³.

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APPLICATION:

- Granular zeolite classes No. 1 to No. 12 are intended for use as soil adjuvants to improve the physical and mechanical properties of soils, as sorbents of pollutants contained in wastewater and air pollutants, as filtration media for drinking water treatment.
- Granular zeolite classes No. 2 to No. 8 are intended as filtration media for swimming pool water treatment.
- Granular zeolite classes No. 1 to No. 3 as well as classes No 9 to No. 12 are intended for use as universal malodour and moisture sorbents in households, as active sorption ingredients for animal litter mixtures, as nutrient and trace element carriers in fertiliser manufacturing, as carriers of active ingredients, for example pesticides.
- Granular zeolite class No. 3 is intended as a sand material for the winter storage of vegetables, as a sand material for sanding lawns, grassy surfaces, and sports playgrounds. Granular zeolite class No. 3 is used as a universal natural adsorbent of water, oil, diesel, petrol, lubricants, and greases for garage and workshop. It adsorbs household spills (on the floor, on furniture surfaces, carpets, etc.). It is also a reliable malodour adsorbent, resistant to chemical sorption materials suitable for the adsorption of aggressive liquids (except for HF and H₂O₂) from hard surfaces.
- Granular zeolite classes No. 4 and No. 5 are intended for use as effective deodorants and moisture sorbents in storage areas and refrigerators, as filtration cartridge materials for aquariums, also used as aquarium gravel.
- Granular zeolite classes No. 4 to No. 7 are intended as sand for the hydroponic cultivation of plants, as drainage materials for establishing all types of grass surfaces thanks to their ability to control the water content in soils; they are also used as drainage materials for the establishment of dumps and waste piles thanks to their ability to adsorb selected contaminants.
- Granular zeolite classes No. 4, 6, and 8 are intended for use as effective sorption and deodorant animal bedding materials, as natural spreading materials with indirect bacteriostatic and fungistatic effects thanks to their ability to adsorb moisture and malodours.
- Granular zeolite class No. 7 is intended as a decorative material for flower pots and fountains; for building filtration areas in natural and garden lakes; for paths, graves, etc.
- Granular zeolite classes No. 5 and No. 7 are also intended as fillers (aggregates) in the manufacture of building components.

STORAGE:

The product is to be stored in its original, undamaged, and sealed containers, preferably in dry, hygienic, and well-aired indoor storage rooms, away from foodstuffs, beverages, and feeds. Any used containers, once they are empty, are to be disposed of as separated waste or using an approved incinerator.

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**LIFETIME:**

If the required storage conditions are observed, the product remains useful for up to 2 years.

DELIVERY:

25 kg paper bags, polyethylene bags, paper bags (10 kg, 5 kg),
paper box (6kg, 2 l),
BigBag packaging (1,000 kg / 1,200 kg / pallet)
bulk material, silo

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