

Vermiculite Data Sheet

Palabora



Dates, facts and informations



Vermiculite in seiner Anwendungsvielfalt

Umweltschutz



Putz- und Mörtel Industrie



Sanierung & Trockenbau



Anlagenbau & Ofenbau



Brandschutz & Akustik



Transport & Verpackung



Automotive



Stahlwerke & Giessereien



Orthopädie & Modellbau



Glasproduktion



Viehzucht & Landwirtschaft Pflanzenzucht & Gartenbau



Chemische und Physikalische Werte

- pH-Wert ca. 7,5
- Sintertemperatur ca. 1.260 °C
- Schmelzpunkt ca. 1.315 °C
- Keine Silikose, Gewerbehygiene
- Nichtbrennbarkeit Klasse A1
- Wärmeleitfähigkeit 0,07 W/mK (DIN 4108)
- Schüttdichte 100 - 125 g/Ltr (DIN 1060)
- Stampfvolumen 650 - 900 ml/100 gr

SiO_2	Al_2O_3	Fe_2O_3	MgO
35,00 - 41,00%	6,00 - 9,50%	6,00 - 9,50%	21,50 - 25,50%
CaO	K_2O	TiO_2	P_2O_5
2,00 - 6,00%	3,00 - 6,00%	0,60 - 1,40%	0,20 - 2,00%
Cr_2O_3	F	CL	CO_2
0,01 - 0,15%	0,20 - 0,80%	0,00 - 0,50%	0,60 - 2,50%



Product Description

Vermiculite is made from aluminum-iron-magnesium silicate, which expands to many times its original volume when exposed to a very high temperature in a shock-like manner. Vermiculite is sterile, free of bacteria and germs.

Mischung:			0 - 1 mm	micron	
Dimension			Quota		Fokus
0.25	>	mm	< 5 %		90%
0.25	bis	0.50 mm	20 - 35 %		
0.50	bis	1.00 mm	60 - 80 %		
1.00	bis	2.00 mm	2 - 6 %		



Delivery Form & Bulk Density

- Weight app. 120 -130 kg/m³
- Packaged in 100 liter bags à 12,5 kg each, palettized à 27 bag per palette or silos.

Mischung:			1 - 2 mm	superfein	
Dimension			Quota		Fokus
0.25	>	mm	< 5 %		85%
0.25	bis	0.50 mm	< 6 %		
0.50	bis	1.00 mm	25 - 40 %		
1.00	bis	2.00 mm	45 - 65 %		
2.00	bis	2.80 mm	< 5 %		



Delivery Form & Bulk Density

- Weight app. 100 -110 kg/m³
- Packaged in 100 liter bags à 10 kg each, palettized à 27 bag per palette or silos.

Mischung:			2 - 3 mm	fein	
Dimension			Quota		Fokus
0.50	>	mm	< 5 %		80%
0.50	bis	1.00 mm	1 - 6 %		
1.00	bis	2.00 mm	50 - 60 %		
2.00	bis	3.15 mm	30 - 40 %		
3.15	<	mm	< 5 %		



Delivery Form & Bulk Density

- Weight app. 90 - 95 kg/m³
- Packaged in 100 liter bags à 9,0 kg each, palettized à 27 bag per palette or silos.

Mischung:			3 - 6 mm	medium	
Dimension			Quota		Fokus
1.00	>	mm	< 6 %		75%
1.00	bis	2.00 mm	10 - 15 %		
2.00	bis	3.15 mm	35 - 45 %		
3.15	bis	5.60 mm	30 - 45 %		
5.60	bis	8.00 mm	< 8 %		



Delivery Form & Bulk Density

- Weight app. 85 - 90 kg/m³
- Packaged in 100 liter bags à 8,5 kg each, palettized à 27 bag per palette or silos.

Mischung:		3 - 8 mm	large	
Dimension			Quota	Fokus
2,00	>	mm	< 5 %	75%
2,00	bis	3,15 mm	< 6 %	
3,15	bis	5,60 mm	15 - 25 %	
5,60	bis	8,00 mm	40 - 55 %	
	>	8,00 mm	< 30 %	



Delivery Form & Bulk Density

- Weight app. 85 - 90 kg/m³
- Packaged in 100 liter bags à 8,5 kg each, palettized à 27 bag per palette or silos.



The Ultralight Original Vermiculite

Made from environmentally friendly mineral granules

Vermiculite is a naturally occurring mica mineral with exceptional properties resulting from its crystalline structure. In our production facilities, the material is rapidly heated to temperatures well above 1,000°C in a process known as exfoliation. Through this industrial refinement, the plate-like mineral particles expand in an accordion-like manner, trapping millions of tiny air pockets between their layers. Under a microscope, the characteristic worm-like shape becomes visible. This structure gave the additive-free natural material its name: vermis is the Latin word for "worm". The result is a uniquely porous material with a porosity of up to 90%.



Vermiculite is sterile and free from bacteria and other microorganisms.

Tested and approved

The Vermiculite product was tested by TÜV Rheinland under Order No. 644/10863921 in accordance with the BAM test methods for absorbent materials. Its performance and thermal behaviour as a chemical binding agent were assessed. Under Order No. 644/10863921-1, Vermiculite was also tested as an absorption, cushioning and insulation material with regard to occupational health and environmental safety.



Certificate No. 3022-1320 was issued by the Rosenheim Institute for Building Biology. The product submitted for testing is an inorganic, purely mineral iron-aluminium-magnesium silicate belonging to the mica mineral group and intended

for applications in the construction sector.

In **agriculture** and the **animal feed industry**, quality marks such as ...



... provide information about the relevant authorisation and quality standards, which should be verified in advance for each individual application. Isola Vermiculite is authorised as a manufacturer of feed additives in accordance with Regulation (EC) No 1831/2003 under registration number R29010NW. Commission Implementing Regulation (EU) 2026/1234 authorises vermiculite as a feed additive for chickens for fattening, chickens reared for laying or breeding purposes, and laying hens.