

Vermiculite Data Sheet

Brazil



Data, Facts and Informations



Vermiculite Sample of Applications

Environment Protection



Plestar & Mortar Industry



Dry Construction



Plant & Furnace Construction



Fire Prevention & Acoustics



Transport & Packaging



Automotive



Steel Production



Orthopedics & Modeling



Glass Production



Cattle Breeding & Agriculture



Crop Production & Gardening



Chemical and Physikalical Properties

- pH-Number ca. Ph-Wert ca. 7.5
- Sinter Temperature ca. 1.260 °C
- Melting Point ca. 1.300 - 1.430 °C
- No Silicone, Industrial Hygiene
- Fire Protection Classification A1
- Thermal Conductivity 0,07 W/mK
- Bulk Density 100 -125 g/Ltr (DIN 1060)
- Bulkhead Value 650 - 900 ml/100 gr

SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	Na ₂ O
34,00 - 43,00%	7,00 - 15,0%	5,00 - 13,0%	0,10 - 0,30%
CaO	MgO	K ₂ O	
0,20 - 1,00%	20,00 - 28,00%	0,01 - 0,1%	



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.

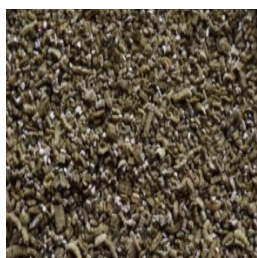
Mixture:		0 - 1 mm		WMB/mic	
Dimension		Quota		Focus	
>	0.25 mm	<	10 %	90%	
0.25	bis 0.50 mm	20 - 35 %			
0.50	bis 1.00 mm	60 - 80 %			
1.00	bis 2.00 mm	<	10 %		



Delivery Form & Bulk Weight

- Weight approx. 120 -130 kg/m³
- Packed in 100 litre sacks à 12 kg à 27 sack/palett, in a big bag or as a silo

Mixture:		1 - 2 mm		WMB/SF	
Dimension		Quota		Focus	
>	0.25 mm	1 -	5 %	90%	
0.25 bis	0.50 mm	1 -	10 %		
0.50 bis	1.00 mm	35 -	55 %		
1.00 bis	2.00 mm	40 -	60 %		
2.00 bis	3.15 mm	<	5 %		



Delivery Form & Bulk Weight

- Weight approx. 100 -110 kg/m³
- Packed in 100 litre sacks à 10 kg à 27 sack/palett, in a big bag or as a silo

Mixture:		2 - 3 mm		WMB/F	
Dimension		Quota		Focus	
>	0.50 mm	0 -	1 %	95%	
0.50 bis	1.00 mm	1 -	5 %		
1.00 bis	2.00 mm	45 -	65 %		
2.00 bis	3.15 mm	40 -	50 %		
<	3.15 mm	1 -	5 %		



Delivery Form & Bulk Weight

- Weight approx. 90 -100 kg/m³
- Packed in 100 litre sacks à 9 kg à 27 sack/palett, in a big bag or as a silo

Mixture:		2 - 3 mm		WMB/F	
Dimension		Quota		Focus	
>	0.50 mm	0 - 1	%	95%	
0.50 bis	1.00 mm	1 - 5	%		
1.00 bis	2.00 mm	45 - 65	%		
2.00 bis	3.15 mm	40 - 50	%		
<	3.15 mm	1 - 5	%		



Delivery Form & Bulk Weight

- Weight approx. 100 -110 kg/m³
- Packed in 100 litre sacks à 10 kg à 27 sack/palett, in a big bag or as a silo



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 183/2005 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.