



ORGANİK madencilik



Your Partner in Vermiculite

MINEROLOGY

Vermiculite is a general term applied to a group of platy, mica-like, hydrated silicate minerals with the general formula $(\text{Mg,Fe,Al})_3(\text{Al,Si})_4\text{O}_{10}(\text{OH})_2 \cdot 4\text{H}_2\text{O}$. Most vermiculite group minerals are the products of aqueous alteration of micas, primarily the biotite subgroup (annite-phlogopite). Karakoc Vermiculite is associated with hornblitic rocks.

PHYSICAL PROPERTIES

Physical state : Solid
Form : Flakes non abrasive
Color : Gold-grey- brown
pH (of water slurry, 20°C) : 7.0-9.0
Melting range : 1350° C
Loose Bulk Density (Crude) : ~600kg/m³
Loose Bulk Density (Exfoliated) (Kg/m³): 90kg/m³
Particle Size:
Coarse: -8;+2,8 mm
Medium: -4;+1,4 mm
Non – exfoliated material :
Medium : <10%
Coarse : <5%
Flash point : Non-flammable
Explosion limits : None

CHEMICAL PROPERTIES

	% wt
SiO ₂	33.96
Al ₂ O ₃	12.94
Fe ₂ O ₃	10.93
MgO	14.81
CaO	8.49
Na ₂ O	0.26
K ₂ O	4.10
TiO ₂	2.17
P ₂ O ₅	0.19
L.O.I*	12

Note: This product has been analysed repeatedly by Institute of Occupational Medicine in Scotland and has been found to be free of contamination from asbestiform mineral fibres and has a quartz concentration of less than 0.1%.



ORGANİK MADENCİLİK A.Ş.

PK.50 Yıldızeli Sivas Türkiye

info@organikmadencilik.com | www.organikmadencilik.com

KEY PROPERTIES

Fire resistance
Good insulating properties
High liquid absorption capacity
Inertness and low density
Being non-combustible and insoluble in water or organic solvents, vermiculite is safe and easy to handle, The bulk density, size and aspect ratio of exfoliated vermiculite can be varied to suit particular end uses, and, due to its inherent stability, vermiculite is being used increasingly in applications where health and safety are of prime importance.

APPLICATIONS

Horticulture

Provides aeration and drainage, retains and holds substantial amounts of water and later release it as needed, they are sterile and free from diseases, they have a fairly neutral pH (especially perlite which is neutral), and they are readily available, non-toxic, safe to use, and relatively inexpensive

Agriculture

Animal feed, Anti-caking material & Bulking agent, Fertilizer, Pesticide, Seed encapsulant, Soil conditioner.

Construction

Lightweight aggregate, Thermal Insulation, Fire-Proofing, Acoustic Insulation.

Refractory

Vermiculite for refractory and high temperature insulation is normally bonded with alumina cements, fire clays and silicates to produce a wide range of vermiculite products.

Packaging

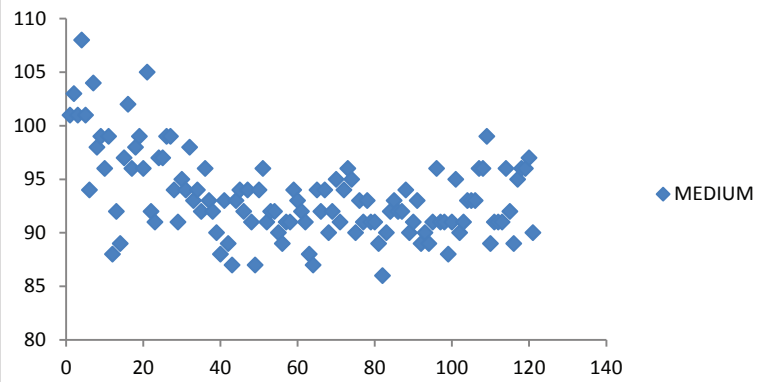
Exfoliated vermiculite is a useful packaging medium. Not only is it lightweight, clean and easily poured around irregular shaped objects, it also provides a good baffle against shocks caused by impact and improper handling.



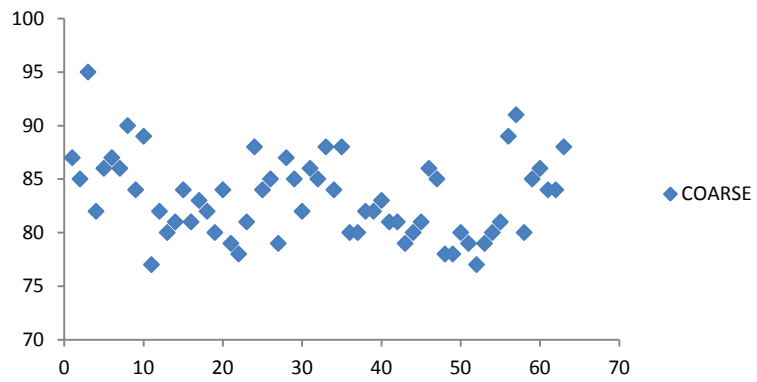
Organik Madencilik A.Ş. Sivas, TÜRKİYE
© Dr.Arif YILDIRIM, 2014

CURRENT PRODUCTION DATA

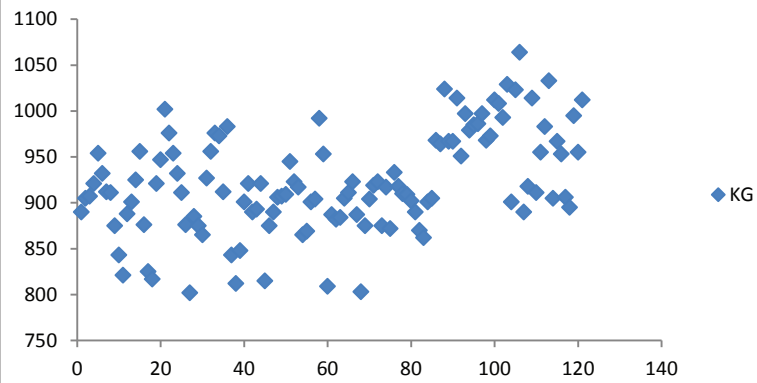
MEDIUM Product LBD kg/m3



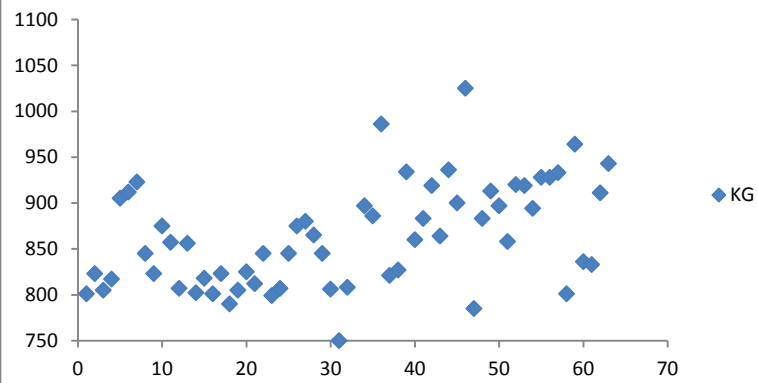
Coarse Product LBD kg/m3



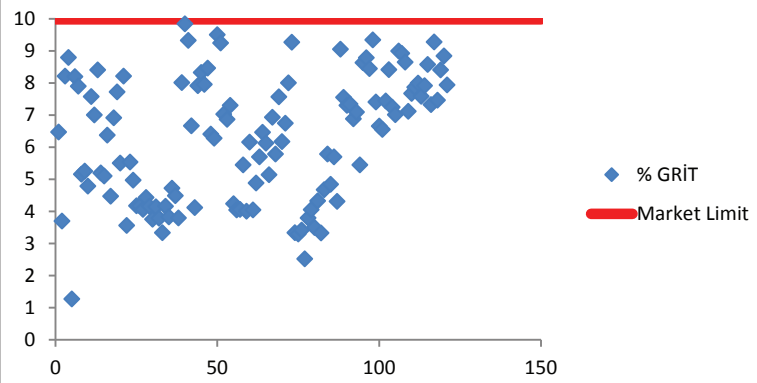
1 Bigbag per kilo MEDIUM



1 Bigbag per kilo COARSE



% Grit MEDIUM



% Grit Coarse

