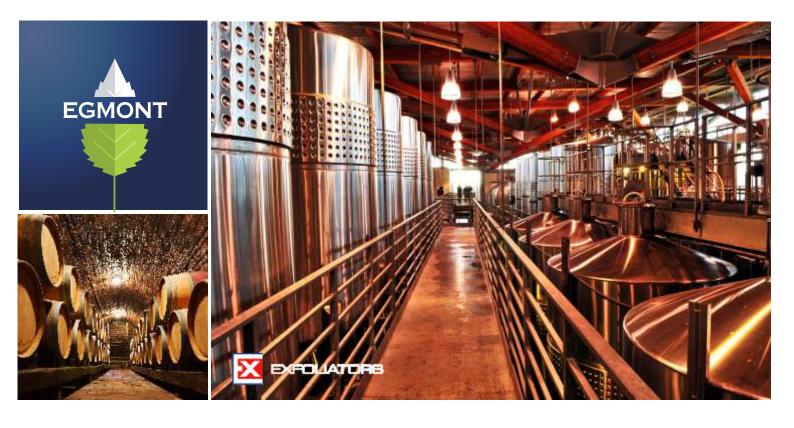


# Perlite Filter Aid

CERTIFIED ORGANIC • SUSTAINABLE • INTERNATIONALLY QUALITY APPROVED.



### Perlite Filter Aid

Perlite as a Filtration Medium has been growing in popularity world-wide for some time now, with market share typically being converted from heavier, Earth type mediums. Perlite's lightweight, porous and interlocking structure while being sterile and inert, make perlite a perfect filtration medium for a variety of applications;

- Beverage Processing: Wine, Beers, Juice, Soft Drinks
- Food Processing: Oils, Syrups, Sugars,
- Pharmaceuticals: Enzymes, Antibiotics,
- Industrial: Water Treatment, Oil Processing & Recovery,
  Solvent Recovery
- Chemicals: Inorganic & Organic Chemicals, Resins, Polymers, Adhesives, Fertilizers, Waste Disposal
- Paints & Coatings: Waxes, Oils, Varnish, Gums
- Environmental: Stormwater Filters, Ecology
- Embankments, Media Filter Drains

#### Lightweight

Generically, Perlite Filter Aid is 20-50% lighter than conventional mediums. This sees major cost and handling advantages flow through to the customer's entire organisation.

#### **Porous Nature**

Due to Perlites porous nature, it provides high clarity without sacrificing flow rates or throughput - with flow rates ranging from 0.2 – 6.0 Darcies.Perlite Filter Aids present less cracking on filter cakes, allowing for further increases in filtration efficiencies and increases in the quality of product filtered

#### Sterile & Inert

Through manufacturing, Perlite becomes sterile at high temperatures and is manufactured within a closed loop production system. It is also inert and insoluble in most applications - so it will not impart taste, colour or odour.

#### **Easily Adaptable**

Perlite is easily adaptable and homogenous to filter media used with pressure or vacuum filtration equipment - RVD, Screen, Candle, Chamber Presses.

#### **OH&S Positive**

Perlite Filter Aids are lighter than comparative earth media, alleviating major manual handling concerns along with operator respiratory concerns when handling earth-type filter media.

#### **Simple Cake Release**

As Perlite does not compact or shrink after a release of pressure from the filtration cycle, Media change over is simple and easy - saving time and labour.







# FilterLite Premium Perlite Filter Aid

#### Why choose us?

Our range of FilterLite Premium Perlite Filter Aids have been carefully manufactured to ensure the greatest efficiency and quality is achieved for our filtration partners, their specific application and their products produced.

#### **Equipment Selection**

We operate the worlds most advanced processing technology. This equipment ensures that our Premium Perlite Filter Aids are;

- Manufactured within Tight Specifications.
- Repeatable and Consistent Products.
- A holistic range of Grades.
- Free of Abrasive and Non-Useable Grit.
- Produced with Zero Waste.
- Produced Energy Efficiently



#### **Raw Material Selection**

Perlites can be very different from one source to another, thus, raw material selection is extremely important to achieve specific and high quality products.

We have selected the worlds most optimum ore for Perlite Filter Aid production. This particular ore produces our range of Premium Perlite Filter Aid that are;

- Low Bulk-Density up to 25% lighter.
- High Permeability up to 20% increase in flow rates.
- Low Wet Cake Density up to 25% lighter.
- Low Floater Content.
- Pure White Expanded Colour.

#### **Specific Grades**

- Ultra Slow EF US5. Medium- EF M40.
- Ultra Slow EF US10. Medium- EF M50.
- Very Slow EF VS20. Fast EF F60.
- Slow EF S30. Very Fast EF VF70



Available in 11 kg bags or 250kg Bulk Bags - delivered on pallets - or container direct to you.







# FilterLite Technical Specifications

#### **Ultra Slow - Slow Flow**

Grade	EF US5 EF US		S10 EF VS20		EF S30			
Dry Bulk Density (kg/m3)	155	170	130	145	115	130	105	120
Wet Cake Density (kg/m3)	230	260	215	230	190	220	185	200
Permeability (Darcy)	0.10	0.50	0.30	0.60	0.60	0.90	0.90	1.20
Floaters	0%		4%		6%		7%	
Moisture	< 0.5%		< 0.5%		< 0.5%		< 0.5%	
pH	7.3		7.	3	7.	3	7.	3
Colour	White	8	Wh	ite	Wh	ite	Wh	ite
Paper Sack (kg)	12.5		19		17		15	
Small Bulk Bag (kg)	320		300		280		260	
Big Bulk Bag (kg)	370		35	50	33	30	31	0

#### **Medium - Fast Flow**

Grade	EF M40		EF M50		EF F60		EF VF70	
Dry Bulk Density (kg/m3)	95	110	85	100	80	95	75	90
Wet Cake Density (kg/m3)	160	190	160	190	130	160	130	160
Permeability (Darcy)	1.00	1.30	1.30	1.65	1.65	2.10	2.00	2.40
Floaters	8	8% 10%		13%		14%		
Moisture	< 0.5%		< 0.5%		< 0.5%		< 0.5%	
pH	7.	3	7	3	7	.3	7	3
Colour	White		White		White		White	
Paper Sack (kg)	13		12		11		10	
Small Bulk Bag (kg)	240		550		200		180	
Big Bulk Bag (kg)	290		270		250		230	



## What is Perlite?

Expanded Perlite is produced from naturally occurring siliceous rock (Perlite Ore) and is typically found in volcanic regions. The ore has a moisture content of approximately 2-4% within each particle and under processing, the ore is heated rapidly (875-1100°C), causing expansion (15-20 times original size) due to entrapped moisture boiling or steaming out of each particle of ore.

After expansion, each Perlite particle is:

- Porous in Structure
- Spherical in Shape
- Up to 20 times Original Size
- Low Density
- Sterile
- Ph Neutral
- Chemically Inert
- High Moisture Absorption
- Thermal Insulating
- Acoustic Absorption
- Non-Combustible

Exfoliators produce two different types of Expanded Perlite;

- Expanded Perlite
- Expanded Perlite Milled

#### **Typical Chemical Analysis**

Perlite Chemical Analysis				
Component	I.D.	% wt		
Silicon Dioxide	SiO2	70-80%		
Aluminium Oxide	AI 203	13.50%		
Potassium Oxide	K20	3.90%		
Sodium Oxide	Na20	3.20%		
Iron Oxide	Fe203	1.30%		
Calcium Oxide	CaO	1.30%		
Magnesium Oxide	MgD	0.20%		
Titania	TiO2	0.10%		
Phosphorous	P	0.04%		
Sulfur	S	0.02%		
Heavy Metals		-		
Fluorite				

#### **Typical Physical Characteristics**

Perlite Physical Characteristics			
Ore Density (kg/1.0m3)	950 - 1200		
Ore Size (mm)	0.15 - 6.0		
Expanded Density (kg/1.0m3)	30 - 185		
Expanded Size (mm)	0.01 - 10.0		
pH Value	6.5 - 8.0		
Refractive Index	1.5		
Fusion Point	1260 - 1340°C		
Solubility	Alkali & HF		
Thermal Conductivity	0.04 - 0.06 w/m.k		



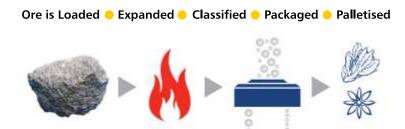




# **Production Process**

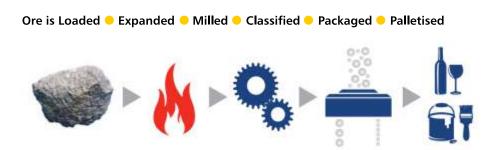
#### **Expanded Perlite**

Perlite ore is fed into the furnace and dropped over a high temperature flame- where it expands, it then travels under vacuum to be classified and packaged. Typically these products are used for Horticulture or Construction applications.



#### **Expanded Perlite Milled**

Perlite ore is fed into the furnace and dropped over a high temperature flame - where it expands, it then travels to the mill for crushing and classification, producing a fine, absorbent particle that has a plate-like structure and is now inter-locking. It is used as a Filter Aid or a Functional Additive.









#### Made in Australia to

# World Class Standards

#### **International Management Standards**

To ensure our place as a world-class producer, Exfoliators have imposed strict Quality, Environmental and Safety Standards. Every step of our manufacturing process is analysed to reach optimal output and efficiency.

Our daily operation and specifications are governed by our Certified Systems, ISO 9001, ISO 14001, AS/NZ 4801.

#### **Certified Organic**

Exfoliators facility is certified to produce products which are used as inputs and processing aids in Organic Production. This certification allows our customers to target and gain market advantage in one of the worlds fastest growing food and beverage segments.

#### **Raw Material Selection**

Exfoliators drive for meeting and exceeding customer requirements, extends to raw material selection. We choose only the highest quality ore for each specific application. Exfoliators sources ore from all over the globe including; Australia, New Zealand, South Africa, Turkey, Greece and The USA.

#### **Specific Production Processes**

Exfoliators modern manufacturing plant allows it to develop production processes that ensure customers' specific requirements can be met and exceeded as efficiently as possible with minimal or zero waste.

#### **Optimal Supply Chain Process**

Exfoliators operate Optimal Supply Chain Processes, ensuring our industry partners receive products efficiently, without damage or delay. Components of this include; Large Warehousing Facilities, High Holding of Raw Materials, High Holding Levels of FinishedGoods, Optimised Packaging & Efficient Transport Systems.















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