

"Filter Aid Perlite"



Perlite filter Aid is produced by meticulous Ore classifications, Several grades are obtained by milling the expanded Perlite and classify it using cyclone separation system.

Expanded Perlite exhibit a unique jagged interlocking structure with myriad of microscopic channels to enable Optimum flow rate and clarity for varied applications.

For the past two decades, the use of Perlite as filter aid has taken over Diatomite in terms of efficiency and economy.



Typical Properties Egyperl Perlite Filter Aids

EGYPERL GRADE	1500	1600	1800	2000L	2000H
COLOR	WHITE	WHITE	WHITE	WHITE	WHITE
SPECIFIC GRAVITY	0.32	0.32	0.32	0.32	0.32
RELATIVE FLOW RATE	1135	800	4400	300	200
PERMEABILITY (DARCIES)	2.2	1.3	0.56	0.18	0.06
LOOSE WEIGHT DENSITY (KG/ M ³)	110 - 125	100 - 110	110 - 125	125 - 140	200 - 250
FILTER CAKE DENSITY (KG / M ³)	240 - 250	250 - 260	230 - 250	250 - 270	320 - 350
% RETENTION U.S. SIEVE No. 140	25 - 35	15 - 25	5 - 7	0	0
PH 10 % SLURRY	6.5 - 7.5	6.5 - 7.5	6.5 - 7.5	6.5 - 7.5	6.5 - 7.5
MOISTURE MAX (%by weight)	0.5	0.5	0.5	0.5	0.5

*** Note:**

Egyperl Perlite Filter aids are produced in a full range of grades to economically meet the flow rate and clarity requirements of almost every industry.

• Why do we need to use filter aid ?

- Filter aid is used for the kind of filtration in which it is the solid we want to retain, not the liquid. We want the liquid in well clarified condition.
- Without a filter aid, such filtration is often very difficult or even impossible.
- The fine solids accumulate on the filtering surfaces, and block them more or less quickly according to their size, thickness and concentration.



A comparison between systems use the filter aid and others don't This will help us to understand the benefits that will be gained from using the filter aid systems

Items	Filter Aid systems	Non-filter aid systems
Filtration rate	Fast	Too slow
Cycle time	Long	Too short
Clarity of filtered liquid	Very good	Not good enough
Filter cleaning	Easy cleaning	Very difficult cleaning
Septum protection	Well protected	No protection
The presence of light cloth	Not required and best avoided	Essential *

* The presence of light cloth or other septum with very fine small apertures will has bad effect on the flow rate as this tight cloth is easily blocked by the impurities which will reduce the flow rate.

• Advantages :-

1. Light Cake Density :-

Perlite filter Aid gives a density advantage of 20% to 50% over other filter aid. The cake density of the Perlite filter aid is in the range of 120 to 250 kg/m³.

2. Economical :-

Filter aid is usually purchased by Wight. Therefore, Perlite filter aids offer more volume per ton purchased than any other filter Aid, and that will reduce the total cost, especially on Rotary Vacuum per-coat Filters.

3. Pressure or Vacuum filtration :-

Perlite filter aid can replace your present media, under normal operation conditions, with excellent performance and economical results.

4. Less Cracking :-

When Perlite filter aids are used with Rotary Vacuum filters, the cake exhibit less cracking than when other filter aids are used.



5. Easy Cake Release :-

At the end of the cycle on pressure filters, Perlite filter aids drop off filter leaves easily and facilitate cleaning the filter.

6. Perlite is sterile and inert material :-

Perlite is an amorphous mineral consisting of fused Sodium, Potassium, Aluminum and Silicate. Perlite filter aids are processed at a temperature exceeding 800 0C (1500 0F) which eliminates Organic matter. They have extremely low solubility's in mineral and organic acids at both low and high temperatures. Solubility in strong alkalis will vary according to temperature and time of contact.

7. High Permeability :-

Perlite filter aids are especially applicable for fast flow rate requirements with syrupy or gelatinous slurries which, coupled with Perlite's light density makes the most permeable filter media available.

8. Inert - Codex approved :-

Perlite Filter aid is a sterile, inert and glassy like a product which is approved for filtering liquids in the food industry. Perlite filter aid does not impart taste, odor or color, and is listed in the US Food Chemicals codex, Second Edition, Published by the National Academy of Sciences.

9. Full range of grades :-

Perlite Filter aids are available in a full range of grades for industrial applications for fast flow rates to Maximum clarity.

10. Safe in handling :-

Perlite filter aids do not pose a health hazard.

• Summary of Advantages :-

- Economical.
- Light Cake density.
- Optimum clarity of filtered products.
- Variable flow rates.
- No color, taste or odor.
- Inert and insoluble in acids.
- Easy cake release.
- Non- Hazardous and safe in handling.

• Application of Perlite Filter Aid :-

a. Food processing :-

- Corn Syrup Filtration.
- Sugar Syrup Filtration (Either Beat or Can Sugar).
- Molasses.
- Fruit Juices.
- Vegetable Palm Oils.
- Citric Acid.
- Soft Drinks.



b. Chemical industries :-

- Inorganic and Organic Chemicals.
- Polymers, Resins.
- Sulphuric Acids.
- Fertilizer.
- Adhesives.
- Titanium dioxide.
- Waste Disposal.



c. Water purifier & treatment :-

- Wastewater.
- Drinking water.
- Mineral water.



d. Other Industries :-

- Pharmaceuticals.
- Oil Recovery.
- Solvent Recovery.
- Paint, Coating, Textiles.



And many uses ...