

TOPKEL

FAST FLOW RATE
EXCELLENT CLARITY



**PERLITE
FILTER
AID**

What is Perlite Filter Aid?

Perlite is a naturally occurring siliceous rock of volcanic origin. This rock when crushed and heated under proper conditions expands to 20 times or more of its original volume. A special milling and classification process gives the correct particle size distributions needed for optimum performance as a filter aid.

Perlite filter aid improves filtering efficiency by increasing the permeability of the filter cake and is either added to the suspension to be filtered or built on the filter as a layer through which the liquid must pass.



Topkel is inert, sterile, light weight having a unique interlocking structure that affords fast flow rate with excellent clarity.

Topkel does not impart taste, colour or odour to the filtered product. Therefore it is ideal for filtering food beverage and pharmaceutical products.

TOPKEL

Topkel Perlite filter aid is manufactured in India by Keltech Energies Ltd, a company of the Chowgule Group of companies, with several decades of experience in the manufacture and application of perlite products.

Keltech uses advanced technology from Showa Chemical Industry Co Ltd, Japan a leading company specialized in the manufacture of filter aid for over 75 years.

Topkel is an improved filter aid, manufactured from selected perlite ore which is expanded, milled and specially classified to different grades.

**NEW PARTNERSHIP
NEW PERSPECTIVES**

KEL
KELTECH
ENERGIES LTD.
INDIA

S
SHOWA CHEMICAL
INDUSTRIES CO. LTD.
JAPAN

TOPKEL - Key product features

- Up to twice as much filtration (Kg to Kg)
- Excellent clarity of the filtered product
- Variable flow rate
- No color, taste or odor
- Insoluble in acids
- Safe, less than 0.1% crystalline silica
- Non-hazardous
- Usable with standard filter equipment's Pressure/ Vacuum
- Easy cake release and disposal
- Facilitates easy filter cleaning
- Inert
- Easy to handle
- Available in full range of grades
- Economical: More volume per ton

Why TOPKEL

- TOPKEL with its rigid intricately shaped porous individual particles has the special ability to remove small particles of suspended matter at fast flow rate.
- TOPKEL provides the fastest flow rate maintaining an excellent degree of clarity.
- TOPKEL forms a highly permeable stable and incompressible filter cake ensuring consistent flow rate and long cycle time.
- Chemically inert and insoluble in the liquids being filtered.
- Non hazardous waste can be easily disposed off.
- Easy cake discharge.



State-of-the-art Perlite filter aid manufacturing plant



Remarkable cost advantage

Due to its light weight and 20% to 50% density advantage, TOPKEL offers twice as much filtration, kg to kg than any other filter aid.

Hence customers can save substantially in the filtration operation with a better filter aid at lower cost.

How to use TOPKEL in Filtration

Pre-coat

Perlite filter aid slurry is filtered through the filter media or leaves. A thin layer of 1.5-3mm (1/16-1/8 inch) filter cake protects the septum from being clogged by initial solid impurities and bridges the screen opening allowing additional finer media application. It also allows easy cake removal during cleaning cycle.

The filter aid grade used for pre-coat must be carefully selected to allow faster flow rate and at the same time trapping the solid impurities.

Bodyfeed

Bodyfeed is the continuous addition of filter aid to the unfiltered liquid being filtered in order to keep the dirt solids apart; this in turn maintains a porous cake. Bodyfeed maintains clarity and flow rate throughout the filter run, hence the type and grade of Perlite filter

aid used is important to ensure optimum performance. Bodyfeed is added directly to the tank of the liquid to be filtered, or dosed from a slurry tank into the filter inlet. The correct dosage of Bodyfeed will significantly increase yield and offer the longest cycle length.

Filter equipment where you can use TOPKEL

1. Rotary vacuum drum filter
2. Pressure Filter
 - Horizontal self-cleaning plate Filter.
 - Candle or Tube Filter.
 - Plate and frame Filter.
 - Vertical leaf Filter.
 - Nutsche Filter.
 - Horizontal Belt Filter.
 - Sparkler Filter.





APPLICATIONS

Food Processing

- Edible Oils
- Corn Syrup
- Mono Sodium Glutamate
- Juices
- Wine and Beer
- Sugar
- Citric Acid
- Vinegar
- Casein
- Pectin
- Vegetable Oil
- Soft Drinks

Chemicals

- Industrial Oils
- Brine
- Adhesives
- Titanium Dioxide
- Polymers
- Varnishes
- Plastic
- Resins
- Alginate
- Agar Agar
- Sulphuric Acid
- Paints
- Uranium

- Sodium Silicate
- Chemical Carriers
- Fertilizers

Pharmaceuticals

- Active Pharmaceutical Ingredients/ Intermediates
- Enzymes
- Antibiotics
- Fish Oils
- Epsom Salts

Lubricants

- Grease
- Lard
- Waxes
- Additives

Industrial

- Waste Water Treatment
- Oil Exploration
- Pool Water Treatment
- Sizings
- Solvent Recovery

CODEX APPROVED: Perlite filter aid is listed in the U.S food chemical codex as a safe product for use of filtering liquids in the food industry.

TOPKEL Perlite Filter Aid

Technical Data sheet

Physical Properties

Specification	TOPKEL #31	TOPKEL #32	TOPKEL #33	TOPKEL #34
Color	White	White	White	White
pH (10% Suspension)	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
Specific Gravity	2.3	2.3	2.3	2.3
Cake Density (wet)	0.20-0.30	0.18-0.28	0.15-0.25	0.12-0.22
Darcy	1-1.50	1.50- 2.0	2.0-2.5	2.5-3.5
Moisture	<1%	<1%	<1%	<1%
MPD in Microns	24-40	24-40	30-50	30-50
Packing	20Kg	18Kg	18Kg	16Kg

Chemical composition

Specification	TOPKEL #31	TOPKEL #32	TOPKEL #33	TOPKEL #34
SiO ₂	72-74	72-74	72-74	72-74
Al ₂ O ₃	11-14	11-14	11-14	11-14
Fe ₂ O ₃	0.5-0.8	0.5-0.8	0.5-0.8	0.5-0.8
CaO	0.15-0.22	0.15-0.22	0.15-0.22	0.15-0.22
MgO	0.05-0.22	0.05-0.22	0.05-0.22	0.05-0.22
Na ₂ O	2.9-4.5	2.9-4.5	2.9-4.5	2.9-4.5

TOPKEL - Technical Support

When using TOPKEL for replacing other products, change in operating procedures may be required.

Keltech Sales & Technical services specialist will be pleased to provide guidance as needed for the optimum use of TOPKEL perlite filter aid in specific applications. Our Technical laboratory is equipped with lab scale and pilot scale filters to customize product requirement.



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