

# A NATURAL AID TO INDUSTRIAL FILTRATION

The Unique structure of Perlite Filteraid Material produces a Filteraid with many interlocking fragmented particles. A Perlite Filtercake consists of 80% to 90% void space capable of screening out particles of less than 1 micron size.

Perlite in its natural state is a volcanic mineral which contains several percent of combined water. When crushed and heated under proper conditions, it pops like "POPCORN", expanding to twenty or more times of its original volume. Today, Perlite Filteraids are produced from plants around the world and are being marketed on an ever expanding basis to meet the demands of industry throughout the free world.

Perlite Filteraids are manufactured by Amol Dicalite Limited under the knowhow of M/s. Grefco Inc., U. S. A. the manufacturers' of Dicalite Perlite Filteraids.

They are marketed in India uner the brand name **Dicamol**®

# PERLITE CHEMICAL CHARACTERISTICS

Perlite is an amorphous volcanic mineral. Solubility of Dicamol® Perlite Filteraids is extremely low in inorganic and organic acids at both high and low temperatures. Solubility in alkalies depends upon the kind of alkalies, the concentration and time & temperatures of contact. Perlite Filteraids are processed in the temperature range of 815°C to 1000°C. pH of a 10% suspension is in the range 6.5 to 8.5.

### PERLITE PHYSICAL CHARACTERISTICS

Color	White
Specific Gravity	2.34
Apparent Density	
Dry Loose Density Kg/Cu. M	64 to 176
Dry Tamped Density Kg/Cu. M	208 to 320
Organic Matter	Nil
Hygroscopicity	Nil
Wettability - Easily dispersible in aqueous or non-aqueous liquids.	

# AVAILABLE IN A FULL RANGE OF GRADES

Grade	Flow Ratio	Maximum Filter Cake Density (Kg/m³)	Mean Particle Size (Microns)
434	300	240	6.0
474	650	232	8.0
4104	900	240	10.0
4154	1325	216	15.0
4254	1700 Approx.	144-208	18.0 Approx.

**NOTE:** Selection of correct grade of **Dicamol**<sup>®</sup> to be used depends on the nature of liquid, solid impurities to be filtered and type of filter equipment to be used.

**Particle Size** is directly related to filteraid performance. More permeable filteraids have larger average particle size. Extremely close control maintains highest available clarity at maximum flowrate.

Filter Cake Density: Perlite Filteraids form lower density cakes than Diatomite Filteraids of comparable permeabilities.

**Dicamol**<sup>®</sup> Filteraids have a wide range of apparent densities. Heavier density filteraids, 224-304 Kg./Cu. M are most effective for pressure filtration and as Body Feed. Those with cake densities in the range of 160-224 Kg./Cu. M. are most effective on Rotary Vacuum Drum Filters.

Densities of **Dicamol**<sup>®</sup> filteraids are controlled at a level found to be optimum for the most effective performance.

**Dicamol**<sup>®</sup> products make substantial saving in Filtration costs.

**Clarity: Dicamol**<sup>®</sup> Filteraids can filter out particles of less than 1.0 micron size. This highest clarity is obtained with low permeability grades. As with Diatomite filteraids, the relative clarifying efficiency is inversely related to the flowrate.

# Dicamol® FILTERAID ARE USED AS:

## Precoat

# **Bodyfeed**

The liquid to be filtered is allowed to flow through a packed layer of filteraid.

Filteraid itself is added to the liquid to be filtered.

# FILTER EQUIPMENTS USED FOR Dicamol® PERLITE FILTERAIDS (Partial List)

- Rotary Vacuum Drum Filter
- Tube or Candle Filter

Filter Press

- Vertical Tank Filter
- Horizontal Tank Rotating Leaf Filter, etc.

# SELECTION CRITERIA OF FILTER EQUIPMENTS

This varies on the type of application and depends on:

- a) The type and nature of liquid to be filtered &
- b) Quantity and the level of solid impurities

Particle size distribution is tailored to permit precoating on coarse wire and yet give desired flow rate and clarity.

# SOME INDUSTRIAL APPLICATIONS OF $Dicamol^{\mathbb{R}}$ PERLITE FILTERAIDS

- Antibiotics
   Chemicals
   Dextrose/Glucose
   Dyes
- Fruit JuicesPaintsResinsSoftdrinks

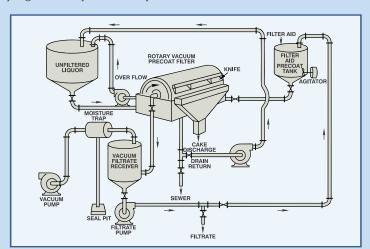
Manufactured By:



# Amol Dicalite Limited

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# **TECHNICAL SERVICES**

Amol Dicalite offers extensive service support to users and prospective users of its materials in the areas of optimum Product Determination, In-plant Research and Filtration Control.

All the facilities of our Research Laboratories are available to customers.