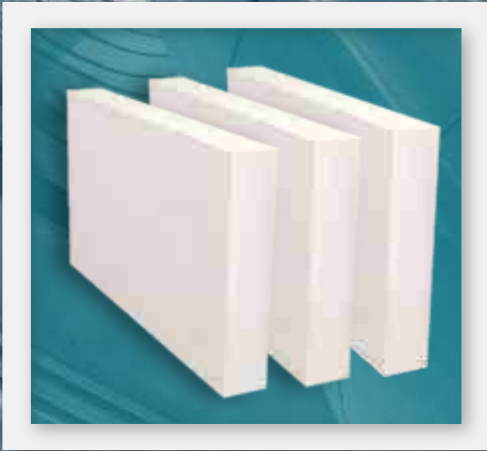




PERLITEMP[®]

Green Insulation for Green Future



AMOL MINECHEM LIMITED



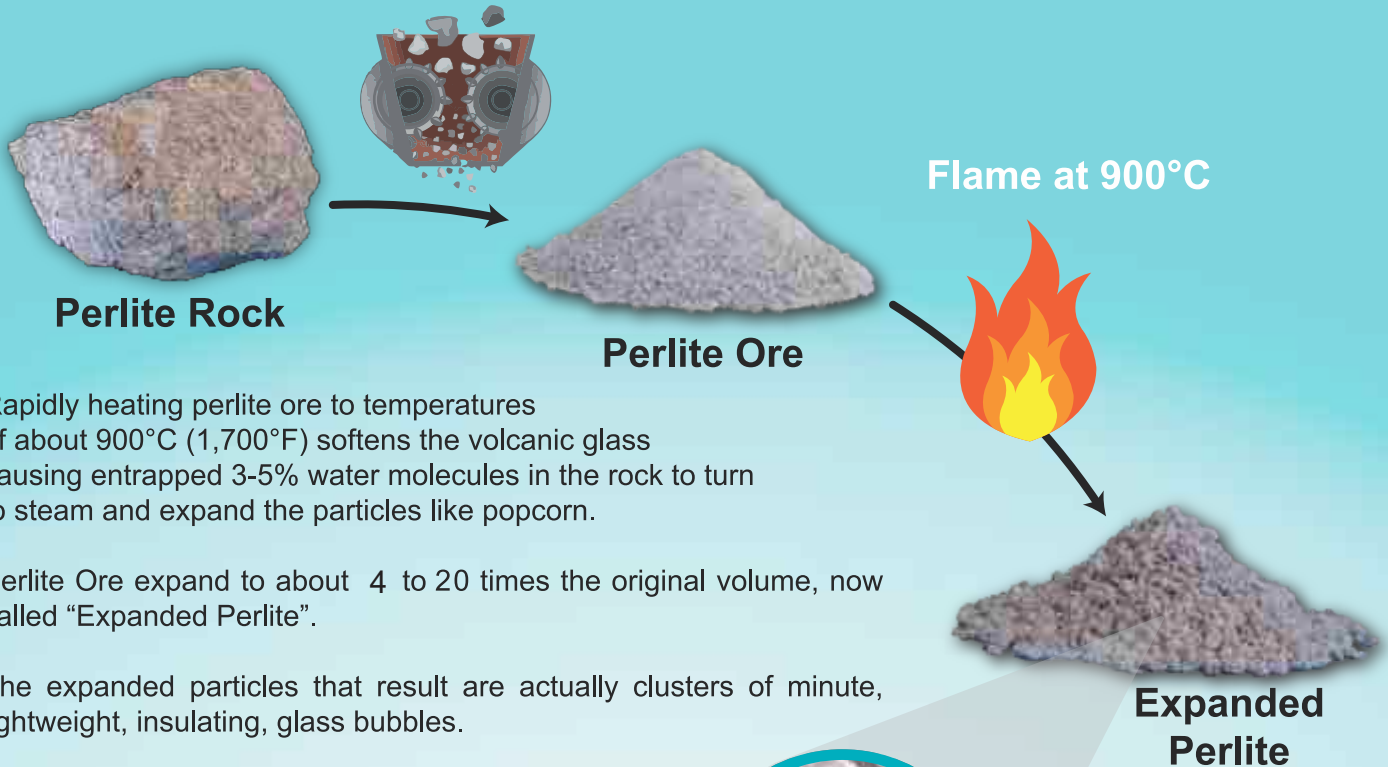
AMOL MINECHEM LIMITED (Formerly known as AMOL DICALITE LIMITED) was established in the year 1979 to produce expanded perlite and insulation products, for the first time in India. Through the pioneering efforts of team, the company is manufacturing and making Rigid Thermal Insulation products made out of Expanded Perlite under the Brand name PERLITEMP®.

AMOL MINECHEM LIMITED is known for innovation and bringing in product for energy conservation, enhancement of plant operation and cost-effective solution.

The company exporting materials to various parts of the world and providing service for Cryogenic insulation all over the world.

What Is Perlite & Why It Works

Pulverizing



Rapidly heating perlite ore to temperatures of about 900°C (1,700°F) softens the volcanic glass causing entrapped 3-5% water molecules in the rock to turn to steam and expand the particles like popcorn.

Perlite Ore expand to about 4 to 20 times the original volume, now called "Expanded Perlite".

The expanded particles that result are actually clusters of minute, lightweight, insulating, glass bubbles.



Microscopic Structure of Perlite

Advantages of Perlitemp

1. Low Conductivity

Thermal conductivity of PERLITEMP® is low because of its principle ingredient being expanded perlite. Due to low thermal conductivity heat loss can be drastically reduced. Thermal conductivity can vary by temperature and density of the material. Thermal conductivity of PERLITEMP® is 0.062 W/mK @25°C.

2. Fire Resistance:

PERLITEMP® has property to resist fire as no Hydrocarbon in compound. So, in case of some fire accident in plant it can protect the pipeline and Equipment. Sometimes it can be use in oil or gas storage tank as a fire protection. It does not generate any toxic or any other smoke in case of direct contact with flame.

3. Non-Corrosive:

Not only is the Chloride content of PERLITEMP® very low but its high content of Sodium ions acts as Corrosion inhibitor and offer an excellent protection against stress corrosion of austentic steel. Also PERLITEMP® does not contain any Sulphur ions which cause corrosion.

4. Good Compressive Strength (Withstand foot traffic):

Molded expanded perlite have high mechanical strength. Due this nature it retains its shape long life. It is easy to climb on the insulation for any maintenance work without fear of damage.

5. Water Repellent:

The extremely water repellent nature of PERLITEMP® insulation retains the low thermal conductivity even when there is water ingress into the system. Other insulation like calcium silicate, mineral wool and rock wool are known to have high water absorption resulting in a loss of insulation property.

6. Environmental Friendly, Easy disposal as landfill:

The main content of perlite is silica so that it can be safely used for landfill without causing any environmental damage. Due to this unique property of perlite, it can be used for Horticulture and Agriculture.

7. Acid and Alkali Resistance

PERLITEMP® has a high resistance to concentrated Acids such as Sulphuric, Hydrochloric and Nitric. It is Entirely free from acid erosion.

Additional Characteristics:

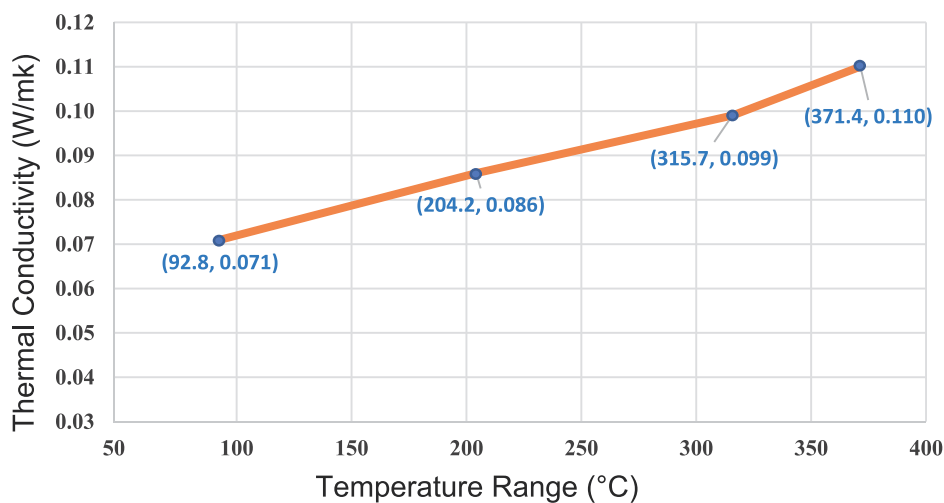
- Asbestos free.
- Very low chloride content: 8PPM.
- Is a natural Volcanic glass with great availability in nature.
- Has no impact on human and does not cause irritation.
- Does not emit toxic gases when exposed to heat i.e. fire, etc.
- Recoverable and reusable.



Technical Specification

Property	Test Method	Astm Standard	We Offer
Density	ASTM C302/303	240 Kg/ Cu.M. (Maximum)	192-224 Kg/ Cu.M.
Moisture content	ASTM C610	Max 10% by Weight	3.5% by weight
Flexural strength	ASTM C203	310 KN/Sq.M (minimum)(Block only)	340 KN/Sq.M
Compressive Strength	ASTM C165	483 KN/ Sq.M-5% Compression(Block only)	540 KN/ Sq.M
Linear shrinkage	ASTM C356	after 24 hours at 650°C Length 2%, Width 2% Thickness 8%	PASS
Surface burning characteristics	ASTM E84	Flame Spread-0 Smoke Developed-5	Flame Spread-0 Smoke Developed-5
Stress corrosion cracking of austenitic stainless steel	ASTM C692	PASS	PASS
Water absorption after heat aging and 48 hours water immersion	ASTM C610	50% by weight	33.2%
Hot surface performance	ASTM C411	PASS	PASS
Weight loss by tumbling	ASTM C421	70%	62.8%

PERLITEMP[®] Thermal conductivity chart



Our Perlite Insulation Available in

Blocks	
Standard Size	900 x 500 mm
Standard Thickness	25,30,38,50,63,75,88,100 mm
Pipe Covering (Half Section)	
Standard Size	15,20,25,40,50,65,80,100, 125,150,200,250,300 mm NB
Standard Length	914 mm
Standard Thickness	25,38,50,63,75,88,100 mm



*for other Thickness and size please check with our sales team.

Perlite Vs Other Insulation

Property	Mineral Wool/ Rock wool/ LRB	Calcium Silicate	Perlite
Thermal conductivity Variation with time	Increase due to sagging and water absorption	Increase due to water absorption	Consistent
Compressive strength	Very poor	Good to sustain foot traffic	Good to sustain foot traffic
Fire resistance	Binders burns	Fire resistance	Fire resistance
water repellence	Soaks water	soaks water	Does not absorb water
Maintenance	Frequently require	Require	Negligible
Life span	3 to 4 years	5 to 6 years	Above 16 years
Chlorine & Sulphur content	Yes	Yes	Nil
Corrosion under insulation	Yes	Yes	No
Reusability	Not Possible	Not Possible	Possible
Max operating Temperature	650°C	1250°C	650°C
Need of Anti corrosion coating under cladding	Yes	Yes	No
Need of Anti corrosion paint on pipe	Yes	Yes	No
Disposal	Process waste	Process waste	Landfill
Cost	₹	₹₹₹	₹₹

Perlite Insulation work:



U-Loop Pipe Section



Straight pipe section



Perlite Block on Large Piping

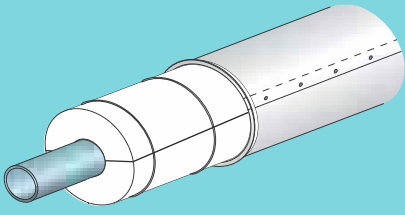


U- Bend big piping-by
Perlite block

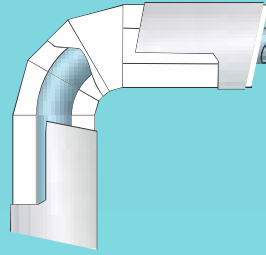


Perlite block on Equipments

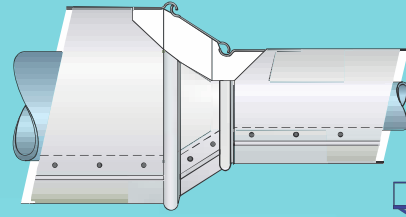
Area of Application:



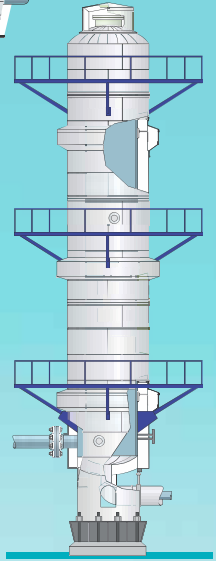
Insulation of Pipe



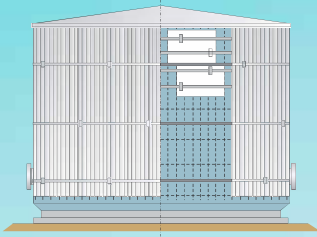
Insulation of Elbows & T



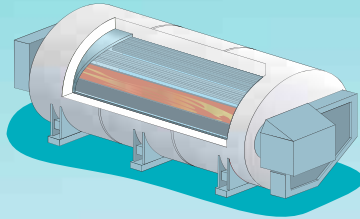
Insulation of Reducer



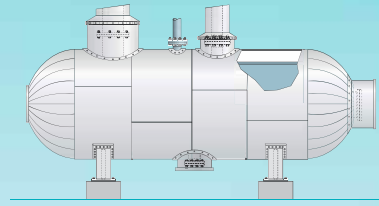
Insulation of Stack



Insulation of Storage tank



Insulation of Boiler



Insulation of Vessel

Users : • Refineries • Petrochemicals • Chemical Plants
• Power • Textiles • Pharmaceuticals • Steam Piping

Our Clients



Biological E. Limited
Celebrating Life Every Day



For a healthy growing India



Delivering Endlessly



KAEFER



AMOL MINECHEM LTD
(Formerly known as AMOL DICALITE LIMITED)

Registered Office / Corporate Office:

401, 'Akshay', 53, Shrimali Society, Navrangpura, Ahmedabad-380 009 (India)

Phone : +91-79-40246246, 26560458.

E:info@amolminechem.com, Website: www.amolminechem.com



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