Keltech also undertakes
manufacture of expanded perlite
for construction, horticulture,
refractory, cryogenic insulation,
foundry, other industrial applications
and on-site installation of perlite.

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CHOWGULE GROUP

Strength and quality
Where it matters most

KELITE

PERLITE
CONCRETE
BLOCKS

THE KELITE BLOCK MIX CONSISTS OF PERLITE, PORTLAND CEMENT, SAND, SPECIAL ADMIXTURES, REINFORCING FIBRE AND WATER

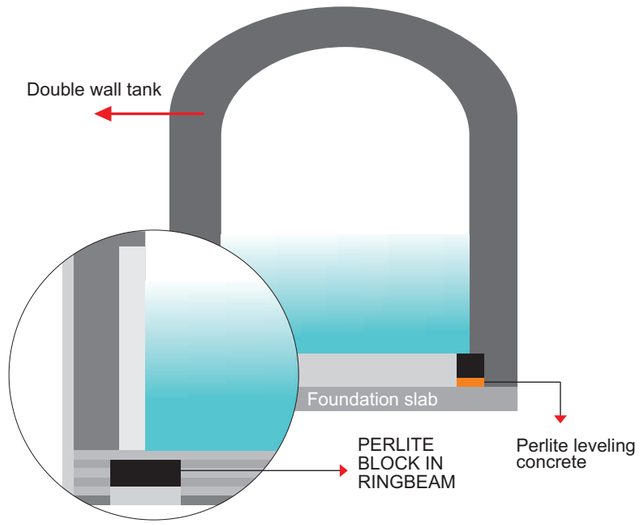
Strength and quality where it matters most

Kelite - PERLITE CONCRETE BLOCKS

Kelite is a lightweight and seismic resistant perlite concrete block and is preferred worldwide for the bottom ring beams of double walled cryogenic tanks to provide excellent thermal insulation and structural support to static and dynamic loads.

Kelite perlite concrete blocks combine high compressive strength with a low thermal conductivity to meet critical requirements in terms of strength and thermal insulation. Kelite blocks are of standard grade or can be made as per customer requirements with respect to compressive strength and thermal conductivity by changing the mix-ratios.

These blocks are manufactured either at the special block making facility in the Keltech factory or at the project site depending on client's requirement.



KELTECH. The name on which the insulation industry builds its strength

Keltech Energies Ltd, an ISO 9001-2000 company is among the global market leaders in expanded perlite products including perlite concrete blocks and is part of the 93 year old Chowgule Group, a prominent player in ship building, shipping and logistics, iron ore mining, pelletization, industrial explosives, industrial salt, industrial gases, perlite expansion and automobiles. The group has a annual turnover of US $ 600 million.

Quality assurance

As an indication of Keltech's commitment to quality and global competitiveness, manufacturing processes at the factory / on-site are operated under stringent quality and statistical process control to enable zero defects and total reliability.

Our Mission is to provide quality products and services which consistently meet our customers' expectations; to be responsible with respect to the safety and environmental impact of our operations and products; and provide superior value for our customers

Salient features of Kelite:

- Lower water absorption and better thermal properties
- High compressive strength due to low water content in the mix
- Steel reinforcement for better tensile strength
- Lifting nuts for easy handling
- Special vapor barrier coating to prevent moisture ingress during storage
- Completely non-combustible material
- Streamlined manufacturing process to ensure zero damage
- Oven dried to ensure low thermal conductivity

Manufacturing Process:

Manufactured using perlite lightweight aggregate, Portland cement, sand, water and special admixtures

Concrete mix poured into steel moulds, fabricated according to the dimensions required

Tested for slump and wet density to ensure conformity to mix ratio.

After initial setting, moulds are dismantled and curing carried out in several stages for a total 28 days

Post curing, blocks dried in electric ovens for 24-48 hours to achieve the specified moisture content.

Blocks inspected for dimensional accuracy and surface imperfections

Double vapor barrier coating on all six sides

Tested for compressive strength and thermal conductivity. All tests are as per ASTM standard or its equivalent

Packed in fibre board boxes with plastic liners, pelletized and stretched wrapped to ensure zero damage and no moisture ingress during transit

PERLITE CONCRETE – Projects executed

IHI – Japan	Petronet LNG Tank - Dahej
FEDO, Udyogamandal	Fact Ltd., Kochi
Punjlloyds Ltd	Reliance Petro - Jamnagar
Vijay Tanks & Vessels	Chemplast Sanmar Ltd., Karaikal
Technip India	Chemplast Sanmar Cuddalore
Mcnally Bharat Engg Co. Ltd.,	Vedanta Alumina Ltd, Jharsuguda, Orissa
Kaefer Punj Lloyd Insulation	RGPPL Project, Dhabol
Kaefer Punj Lloyds Insulation	IOCL-Panipat
Officine Maraldi Bertinoto, Italy	Fatima Fertilizers, Pakistan
Officine Maraldi Bertinoto, Italy	Razi Ammonia Plant-Iran
Vijay Tanks & Vessels	Trust Chemical Industries, Egypt
Officine Maraldi Bertinoto, Italy	Pakarab Fertilizers, Pakistan

Facility specially designed to ensure clean and dust free conditions

Equipment includes drum mixers, vibrators, leveling edges, wheel barrows, forklifts, testing apparatus for wet density, slump, compressive strength, tools & tackles for handling of blocks etc., Design and fabrication of reinforcement steel

Keltech has sophisticated packaging facility that ensures zero damage during transit

Test reports on density, compressive strength, moisture content, dimensional measurement, visual inspection and thermal conductivity will be provided to customers

Live load test for strength can be arranged if required

Why Kelite

Strict quality control to ensure dimensional accuracy of blocks

Correct mix ratio to provide high strength and low thermal conductivity

Handled with extreme care at every stage to ensure zero damage

Kelite blocks manufactured at the factory have been used in diverse applications like Ammonia, Vinyl Chloride Monomer, LNG, LPG, Ethylene, Propylene, LOX, LIN tanks in India and overseas

Repeated orders from renowned customers worldwide is proof of the quality and services rendered by Keltech

Installation

Keltech can undertake installation of perlite concrete blocks at site. The blocks are installed on a leveling perlite concrete layer that is laid above the bottom plate.

Typical Physical properties of Kelite Blocks are shown below.

Grade	Oven Dry Density Kg/m3	Compressive strength Kg/Cm2		Dimensional Tolerance
		7 days	28 days	
#KL -600	550-600	21-25	30-35	Height - ± 2mm, Width -± 3mm Length ± 3mm
# KL -800	750-800	42-50	60-70	Height -± 2mm, Width -± 3mm Length ±3mm
#KL-1000	950-1000	63-70	90-100	Height - ± 3mm, Width - ± 3mm Length ± 3mm
#KL-1200	1150-1200	85-90	120-130	Height - ± 3mm, Width - ± 3mm Length ± 3mm

Typical Thermal conductivity values at specific oven dry densities

Grade	Oven dry density Kgs/m3	Thermal conductivity at 0° C Mean W/M°K
# KL-600	600	0.140
# KL-800	800	0.186
# KL-1000	1000	0.244
# KL-1200	1200	0.344