IPLITE® coreshield

Increase your productivity with Perlite Molded Insulation



Superior Thermal Performance,
Eco-Friendly, and Corrosion Resistant

IPISUNIJAYA

WHAT IS PERLITE?

Perlite is a naturally occurring volcanic mineral that expands when heated, creating a lightweight, porous material ideal for insulation.



Perlite Ore → Refined Perlite → Expanded Perlite

WHY CHOOSE PERLITE PIPE INSULATION?

1. Superior Thermal Performance
Reduces heat loss and improves energy efficiency.

2. Corrosion Resistance
Hydrophobic properties prevent moisture accumulation.

3. Fire Safety
Non-combustible and withstands high temperatures.

4. Eco-Friendly
Sustainable and recyclable material.

5. Lightweight and Easy to Install
Simplifies handling and reduces structural load.



CORESHIELD TECHNICAL DETAIL

Service Temperature	**(Min-Max, °C)**	**-20 ~ 650**
Density	**(Max, kg/m³)**	**220 ~ 250**
Thermal Conductivity (ASTM C177-19)	**(Max, W/mK)**	**0.0687**

BASIC CHEMICAL COMPOSITION

SiO_2	70 - 74%
Al_2O_3	11 - 14%
Na_2O_3	2 - 3.5%
K_2O	3 - 5.3%
CaO	0.1 - 1.1%





PRODUCT REVIEW

IPILITE CORESHIELD is a molded insulation that has the water resistant properties that helps protect pipe and equipment from corrosion under insulation. It has the ability to withstand high temperatures, up to 650°C as per ASTM C610.





CORESHIELD

VS



OTHERS

1. Hydrophobic Nature

Perlite is hydrophobic, meaning it repels water. This property helps in preventing moisture from entering the insulation, which is crucial in preventing CUI. When water is retained in the insulation, it can lead to corrosion of the underlying metal substrate.

2. Corrosion Inhibitors

IPILITE CORESHIELD, contain built-in corrosion inhibitors. These inhibitors help in preventing corrosion by creating a protective layer on the metal surface, especially in high-temperature applications where stress corrosion cracking is a concern.

3. Water Absorption Resistance

Perlite has low water absorption properties, which means it does not absorb significant amounts of moisture even when exposed to high temperatures. This reduces the risk of water-induced corrosion under the insulation.

CORESHIELD SIZE , THICKNESS & SEGMENT

*Standard product length : 600mm

SIZE BOARD		THICKNESS (mm)						
No	Width	30	40	50	65	75	90	100
1	150 mm	●	●	●	●	●	●	●
2	300 mm	●	●	●	●	●	●	●

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CORESHIELD SIZE , THICKNESS & SEGMENT

*Standard product length : 600mm

SIZE PIPE		THICKNESS (mm)						
No	Inch	30	40	50	65	75	90	100
1	1/2	● (2)	● (2)	● (2)				
2	3/4	● (2)	● (2)	● (2)	● (2)	● (2)	● (2)	● (2)
3	1	● (2)	● (2)	● (2)	● (2)		● (2)	● (2)
4	1 1/4	● (2)	● (2)	● (2)		● (2)		
5	1 1/2	● (2)	● (2)	● (2)			● (2)	● (2)
6	2	● (2)	● (2)	● (2)			● (2)	● (2)
7	2 1/2	● (2)	● (2)	● (2)				
8	3		● (2)	● (2)				
9	3 1/2	● (2)	● (2)	● (2)			● (2)	● (2)
10	4	● (2)	● (2)	● (2)		● (2)	● (2)	● (2)
11	4 1/2	● (2)					● (2)	
12	5	● (2)	● (2)	● (2)		● (2)	● (2)	● (2)
13	6	● (2)	● (2)	● (2)	● (2)	● (2)	● (2)	● (3)
14	7	● (3)	● (3)	● (3)	● (3)	● (3)		
15	8	● (3)		● (3)	● (3)	● (3)	● (4)	● (4)
16	9	● (3)	● (3)	● (3)	● (3)	● (3)	● (4)	● (4)
17	10	● (3)	● (3)	● (3)	● (3)			● (4)
18	11	● (4)	● (4)	● (4)			● (5)	● (5)
19	12	● (4)	● (4)	● (4)	● (4)	● (4)	● (5)	● (5)

Note :

● : Ketersediaan size

(2/3/4/5) : Segment