

### **Flexible Aerogel Blanket for High-Temp Insulation Applications**

Suitable for high temperature applications, HT650 Series is a series of flexible and highly efficient insulation blankets in which silica aerogel is composite with fibers,Perfect for the insulation in pipes,tanks,vessels and other applications, HT650 Series is the ideal option for those in need of better insulation performance and lower energy consumption.

Aerogel is the lowest thermal conductive of any present-recognized solid, with this super nano-granule, HT650 Series is a flexible, environmental-friendly, easy-handled

insulation material which makes it the leading product in the industry.

#### **Application advantages:**

- ♦ Superior Insulation Performance
  - 2~5 times better than traditional insultion products with longer service life
- Reduced Insulation Thickness
  For the same insulation performance, just take a portion of thickness of traditional material
- Hydrophobicity and Fire-proof
  Repel water from penetrating into pipes, equipments, A1 rating of fire-proof
- Easy Handling
  Lightweight, easily cut and sewn to fit for different shapes of pipes and equipments, Less and labor for installation
- Transportion Costs Savings
  Lower packing volume and lower weight can greatly cut down logistics costs

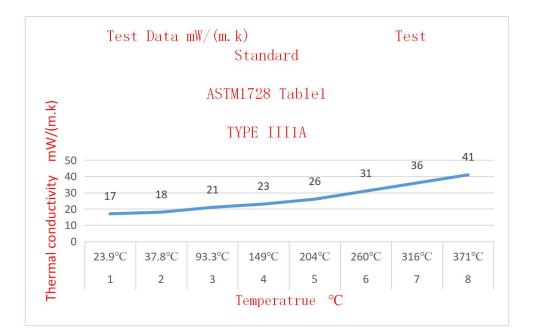
#### **Performance:**

| Model  | НТ650                     |        |        |
|--|---------------------------|--------|--------|
| Thickness                                    | 5mm,10mm as your request  |        |        |
| Width  | 1500mm                    |        |        |
| Hydrophobic                                  | Yes                       |        |        |
| Use of temperature                           | 650℃                      |        |        |
| Density                                      | 220kg/m <sup>3</sup> ±20% |        |        |
| 25°C Thermal Conductivity W/ ( $m \cdot K$ ) | ≤0.019                    | ≪0.021 | ≤0.023 |

## **Applicable areas:**

Prefabricated pipe with insulation Tanks, vessels and other equipment Steam pipelines in petroleum production, Pipelines in thermal power plants, petrochemical plants and chemical plants, Medium and high temperature industrial furnaces and removable escape capsules,Automobile,high-speed subway, Building train, and and constructions





| ltem | Temperature   | Test Data<br>mW/(m.k) | Test standard                     |  |
|------|---|-----------------------|-----------------------------------|--|
| 1    | <b>23.9</b> ℃   | 17                    |                                   |  |
| 2    | <b>37.8</b> ℃   | 18                    | ASTMC1728<br>TABLE1<br>TYPE III1A |  |
| 3    | <b>93.3</b> ℃   | 21                    |                                   |  |
| 4    | <b>149</b> ℃  | 23                    |                                   |  |
| 5    | <b>204</b> ℃  | 26                    |                                   |  |
| 6    | <b>260</b> ℃  | 31                    |                                   |  |
| 7    | <b>316</b> ℃  | 36                    |                                   |  |
| 8    | <b>371</b> ℃  | 41                    |                                   |  |
| Note | The data is the test result, our goods is produced strictly according the ASTM Sthandard. |                       |                                   |  |



# **Product Performance Data**

| Test Procedure                  | Property   |
|---------------------------------|--|
| ASTM C 1728, Type III, Grade 1A | Standard Specification for Flexible Aerogel Insulation |
| ASTM C165                       | 10% Compressive Strength                               |
| ASTM C 356-17                   | Linear Shrinkage Under Soaking Heat                    |
| ASTM C 411                      | Hot Surface Performance                                |
| ASTM C 447                      | Estimation of Maximum Use Temperature                  |
| ASTM C 795-08                   | Insulation for Use Over Austenitic Stainless Steel     |
| ASTM C1101/C1101M               | Classifying the Flexibility of Mineral Fiber Blankets  |
| ASTM C1104/C1104M -13a          | Water Vapor Sorption $\leq$ 5%by weight                |
| ASTM C1338 -2014                | Fungal Resistance of Insulation Materials              |
| ASTM C1617-15                   | Corrosion to steel (mass loss corrosion rate)          |
| ASTM C1728-13                   | Combustion performance                                 |
| ASTM C177-13 and C1728-17       | Thermal conductivity (average temperature)             |
| ASTM C167 or C303               | Thickness and density                                  |
| ASTM C871-11                    | Soluble chloride ion content                           |
| ASTM C411-17                    | Anti-sag (Thickness shrinkage,650°C,96h)               |
| ASTM C1763                      | Water absorption rate during immersion                 |
| ASTM ISO15665                   | Sound insulation of pipes, valves and flanges          |

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