

# MicroCover

MicroCover

## Details

**MicroCover** is the fiber glass thermal insulation in rigid type with high density 56-112 in Kg/m<sup>3</sup> with 1 metre standard length, available in ID 1/2-20" either a choice of unfaced or faced with factory's aluminum foil to prevent moisture and heat/cool lost.

**MicroCover** certified with TIS486 and TIS488 with international standard ASTM



## Facing type

**MicroCover** using right and high quality of facing material will increase not only the heat resistances and moisture permeability performance but applicable with the product application using per standard required

Choice of special surface covering material as below\*(please inquire to the company)

- ☐ Aluminum foil with flame retardant
- ☐ Double sided aluminum foil with flame retardant and moisture permeability\*
- ☐ White aluminum foil\*
- ☐ Black aluminum foil\*

## Key benefits

### Good thermal Insulation

**MicroCover** is a good thermal insulation that has low thermal conductivity (k-values)

Insulation type	k-value at mean temp 100°C	
	Btu.in/ft <sup>2</sup> .h.F	W/m.K
Glasswool	0.29	0.042
Rockwool	0.31	0.045
Calcium silicate	0.40	0.058

### Strong and not fallen easily

**MicroCover** is made from compacted small glass fibers which resulting the insulation does not fall easily and extend its service life longer from the strong performance of the Fiber themselves tightly bond together after operated heavily for a while such as the vibration of the machine.

### Heat resistance

**MicroCover** thermal insulation heat resistance with condensation over 64 kg/m<sup>3</sup> type capable to use in hot tube and chillers when used in operating temperature down to -18°C to 450°C (0 F to 850 F)

## Application

**MicroCover** is the heat/chill loss preventing thermal insulation that able to control the temperature performance pipelines such as hot/cold water supply both internal and external of building, factories, hotel and hospital

**MicroCover** in plain type has (density 64/kg/m<sup>3</sup>) ability to cover hot tube with temperature at maximum 450°C (Max service temp)

\*Other spec is available upon request please inquire to the company

## Properties

Property	Test Method	Specification
Operating temperature range	ASTM C 411	-18 °C to 450 °C (850 °F) Hi-Temperature
Facing temperature limitation	ASTM C 1136	- 20 °C to 116 °C
Water vapor permeance	ASTM E 96	0.02 perm
Water vapor sorption	ASTM C 1104	< 1.0 % at 49 °C, 95% RH
Corrosivity	ASTM C 665	Does not accelerate
Mold or Fungus growth	ASTM C 665	Will not support or promote
Surface burning characteristics	ASTM E 84	Flame spread < 25
		Smoke developed < 50

specifications

# MicroCover

## Thermal Conductivity ASTM C335

Hot Surface °C	Cold Surface °C	Mean Temperature °C	Apparent Thermal Conductivity (W/m.k)
55.60	20.48	38.04	0.03246
134.58	24.11	79.35	0.03697
213.25	28.12	120.69	0.04146
293.95	33.08	163.52	0.04727
374.69	38.60	206.65	0.05456
454.33	44.83	249.58	0.06356

## Installation

**MicroCover** is the insulation tube that will be half cut open in one side for easier in installation and prevent heat/chill loss once cover tube into pipeline. There will also be a tag left over on the surface of closed skin material, these will be covered by aluminum foil in each connection of insulation.

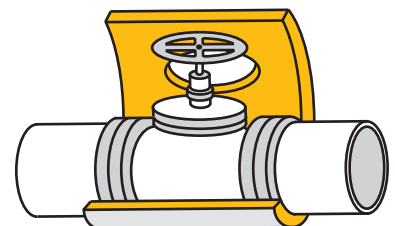
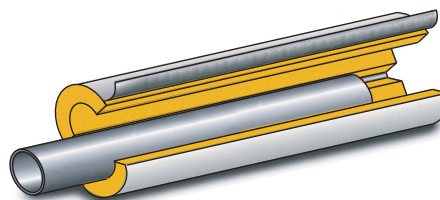
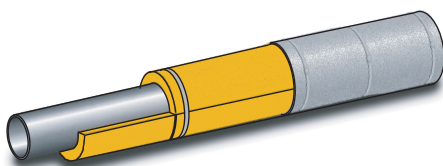
## Standard Size of Products

IRON PIPE		COPPER PIPE	
Nominal Pipe Size (inch)	Outside Diameter (mm.)	Nominal Pipe Size (inch)	Outside Diameter (mm.)
1/2	21.7	5/8	15.88
3/4	27.2	3/4	19.05
1	34.0	7/8	22.23
1 1/4	42.7	1 1/8	28.70
1 1/2	48.6	1 3/8	35.10
2	60.5	1 5/8	41.30
2 1/2	76.3	2 1/8	54.20
3	89.1	2 5/8	67.00
3 1/2	101.6	3 1/8	79.60
4	114.3	4 1/8	105.00
5	139.8	5 1/8	132.00
6	168.3	6 1/8	158.00
8	219.1	-	-
10	273.0	-	-
12	323.8	-	-
14	355.6	-	-
16	406.4	-	-
18	457.2	-	-
20	508.0	-	-

Remark : Standard density is 64kg/m able to produce thermal conductivity at 56-112kg/m3. Thickness of iron pipe is able to produce up to 5 inch, Copper pipe standard thickness is at 3/4+2"

## ECONOMIC THICKNESS OF INSULATION (GUIDE FOR SELECTION)

System	Temp. of Liquid		Pipe Size					
	°C	°F	> Ø 1" (33mm.)	Ø 1 1/2"- 2" (42-60mm.)	Ø 2 1/2"- 4" (73-114mm.)	Ø 5"- 6" (140-168mm.)	Ø 8"- 12" (219-324mm.)	Ø 14"- 20" (350-500mm.)
Heat (Steam, Hot Water)	152-238	306-450	TICKNESS (INCH)					
High Pressure			1.5(38mm.)	1.5(38mm.)	2.0(50mm.)	2.5(63mm.)	3.0(75mm.)	3.5(88mm.)
Medium Pressure	122-151	251-305	1.5(38mm.)	1.5(38mm.)	2.0(50mm.)	2.0(50mm.)	2.5(63mm.)	3.0(75mm.)
Low Pressure	94-121	201-250	1.0(25mm.)	1.5(38mm.)	1.5(38mm.)	2.0(50mm.)	2.0(50mm.)	2.5(63mm.)
Low Temperature	49-93	120-200	1.0(25mm.)	1.0(25mm.)	1.5(38mm.)	1.5(38mm.)	1.5(38mm.)	2.0(50mm.)
Condensate	30-50	110-148	1.0(25mm.)	1.0(25mm.)	1.0(25mm.)	1.5(38mm.)	1.5(38mm.)	2.0(50mm.)



**MicroFiber INDUSTRIES LIMITED**

54 หมู่ 12 ถนนกิ่งแก้ว ตำบลราชาเทวะ อำเภอบางพลี จังหวัดสมุทรปราการ

โทร : 0-2315-5500, 0-2312-4658, 0-2750-1429

โทรสาร : 312-4655 <http://www.microfiber.co.th>

