

Insulated Copper Tubes



Features;

- Dual layer structure insulations have 30 times independent crosslinked polyethylene foam with heat resistance up to 120° .
- Seamless extrusion molding enhances adhesion of copper tube and insulation, which achieves high prevention of dew condensation.
- Embossing on the surface film is high resistant to scratches and wrinkle-free.
- Softly annealed copper pipe is applied.
- Flexible material makes bending easily and saving working time



Material and Characteristic of Copper Pipes - JIS H3300 C1220T

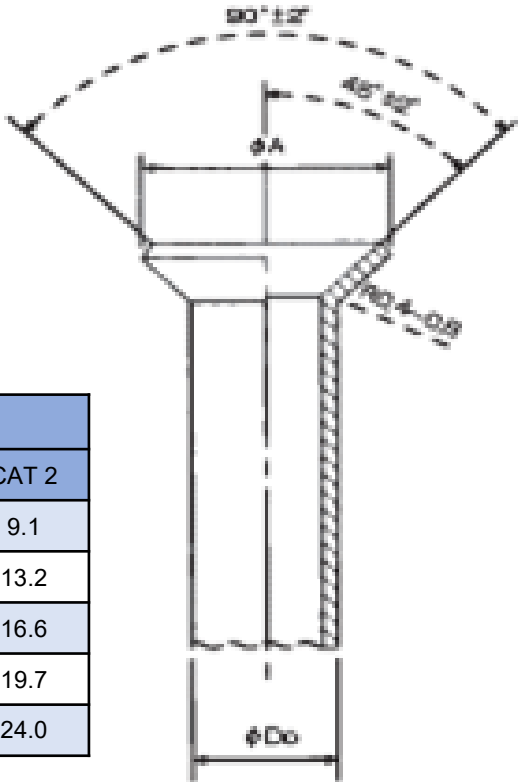
Material	Chemical Composition (%)		Mechanical Property			
	Cu	P	Temper	Tensile strength (N/mm2)	Elongation	Grain size(mm)
Phosphorous-deoxidized seamless copper pipe	More than 99.90	0.015 ~ 0.040	O	More than 205	More than 40	0.025 to 0.060
			1/2H	245 to 325	-	-
			H	More than 315	-	-

Material and Characteristic of Insulation – JIS A9511 A-PE-C-2

Material	Type	Code	Thermal Conductivity W/(m・K)	Thermal resistant (°C)	Thensile strength (N/cm2)	Absorbent (g/100cm2)	Thickness shrinkage (120±5°C)
30 times independent polyethylene foam with the emboss finished film	Polyethylene Material class A and Polyethylene foam mould class 2	A-PE-C-2	Less than 0.043	Up to 120	More than 14	Less than 2.0	Less than 7%

Category indiation for applying refrigeration gas

Number	Category	Applying refrieration gas
①	1	R22, R407C, R404A, R507 etc...
②	2	R22, R410A, R407C, R404A, R507A, R32 etc...
③	3	High pressure refrigeration gas less than 4.80 Mpa



High pressure safety act
Refrigeration safety act
Standard

$$t = \frac{P D_o}{2 \sigma_a \eta + 0.8 P}$$

t : Wall thickness of copper pipe (mm)
P : Designated pressure (Mpa)
Do : Outer diameter of copper pice (mm)
 σ_a : Allowable tensile stress (N/mm2)
 η : Efficiency of welded joint (l)

About Flaring

Pipe Outer Diameter (mm)	A +0/-0.4	
	CAT 1	CAT 2
6.35	9.0	9.1
9.52	13.0	13.2
12.70	16.2	16.6
15.88	19.4	19.7
19.05	23.3	24.0