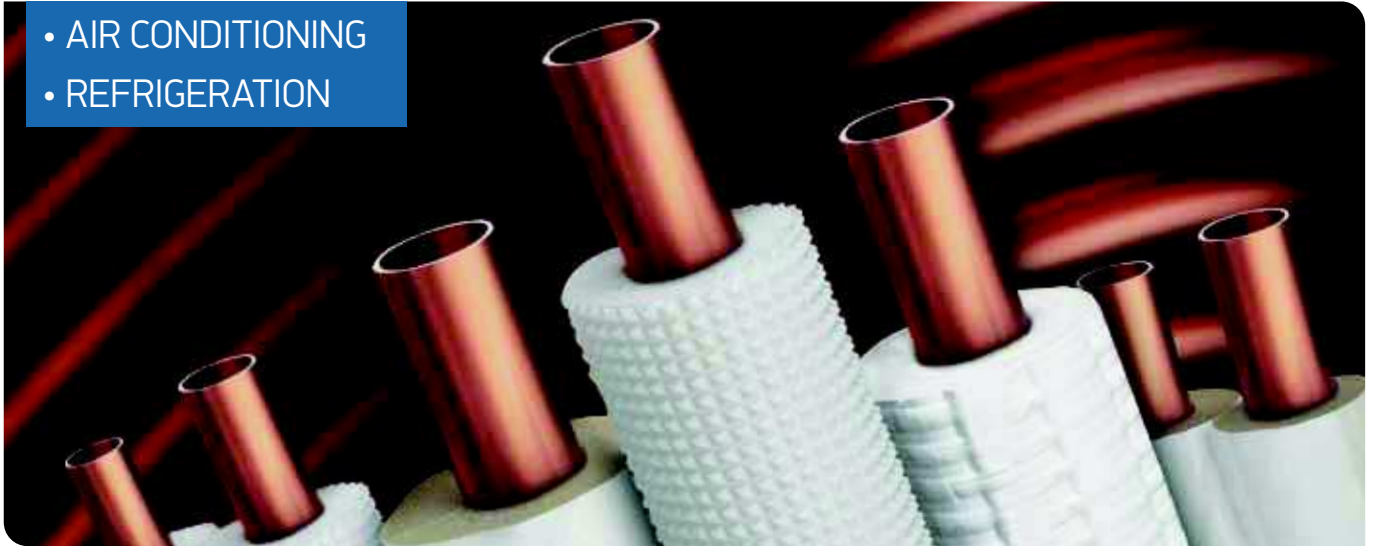




- AIR CONDITIONING
- REFRIGERATION



Advanced Technology that saves Energy and protects the Environment.

- Significant and continuous energy savings
- Safe network operation
- Reduction of installation time
- High resistance to mechanical stress
- Ease of forming
- External or embedded installations
- Resistance to extreme atmospheric conditions

TALOS® ACR ECUTHERM™ pre-insulated copper tubes are advanced technological products of high added value and significantly superior in effectiveness compared to conventional insulation methods.

The unique advantages offered by the TALOS® ACR ECUTHERM™ copper tubes, such as copper resistance and durability, coupled with high performance pre-insulation (Engineering Foams), result in significant energy savings. With a competitive market price and low installation cost, TALOS® ACR ECUTHERM™ copper tubes are the ideal choice for every modern application.

High Performance Technological Product

The insulating material used in the manufacturing of TALOS® ACR ECUTHERM™ copper tubes is an extruded high quality cross-linked polyethylene (PE-X) suitably expanded to form a foam with closed microcells, free of FCFC and fibrous substances. A layer of thin polyethylene coating is adhered to the foamy crosslinked substrate, providing a skin of improved operational features and esthetic appearance.

The closed microcells of the insulating material, combined with the protective outer polyethylene skin, form an integral barrier to aggressive environments, rendering the tube suitable for a variety of applications, such as heating, cooling, and air-conditioning installations.

The TALOS® ACR ECUTHERM™ (PE-X) copper tubes are produced in compliance to the requirements of standards that apply in most of the European Union countries, as regards insulation properties, chemical characteristics and resistance to fire. They exhibit low λ coefficient, determining its heat conductivity properties and very good μ coefficient which determines its resistance to penetration of moisture.

The TALOS® ACR ECUTHERM™ (PE-X) copper tubes are available in coils of 25 & 50 meter lengths and insulation thickness of 6, 9 and 13mm, suiting a variety of insulation needs.

Reliability that only TALOS® Copper Tubes can provide

TALOS® copper tubes are manufactured according to the Harmonised European Standard EN 12735- 1 for use in air conditioning and refrigeration installations. TALOS® copper tubes meet the current requirements, imposed by the new green refrigerants (R -410A, etc.), adopted by major refrigeration and air conditioning unit manufacturers. TALOS® copper tubes have been awarded most major international quality marks. TALOS® copper tubes, with their high quality of manufacture, provide:

- Increased lifetime
- Resistance to pressure, temperature variations and fire
- Complete network impermeability
- Quality and reliability of installation
- Versatile applications
- Comprehensive range of sizes

Copper Tube Material

Copper phosphorus deoxidised (Cu-DHP) with min. copper content 99,90% and P=0,015% - 0,040%.

Specifications

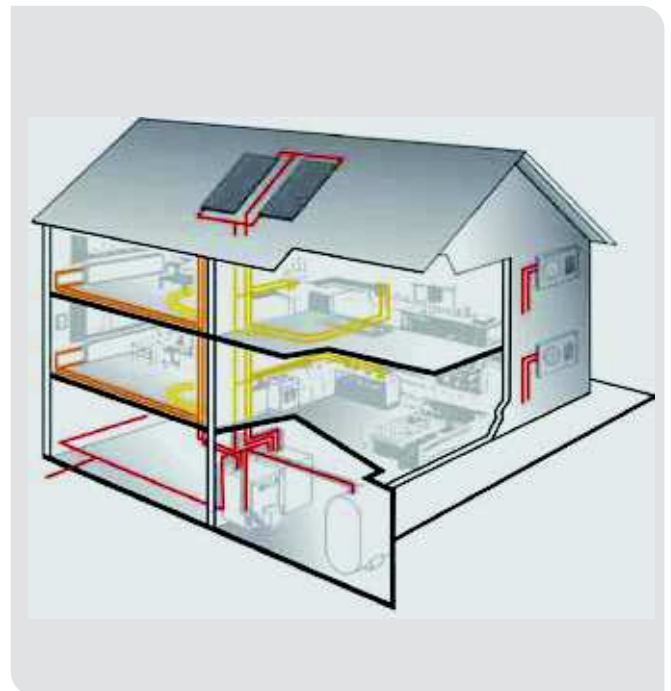
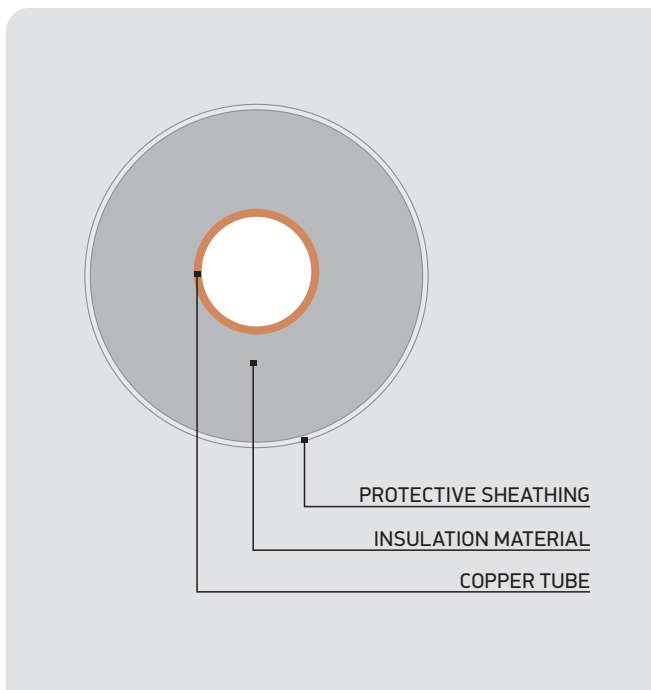
REFRIGERATION PIPES: EN 12735-1.

Quality Marks

REFRIGERATION PIPES: AENOR, TÜV, GL, VIK.

Mechanical Properties

Temper	EN 12735 Classification	Minimum Tensile strength N/mm ²	Minimum Elongation A%
Soft	R-220	220	40



Insulation Technical Properties

MATERIAL	PE-X foam
DENSITY ACCORDING TO DIN 53420 ASTM D 1667	30-33 Kg/m ³
THERMAL CONDUCTIVITY COEFFICIENT ($\bar{\alpha}$) ACCORDING TO ASTM C 335	0,039 W/m.K
VAPOUR-WATER DIFFUSION RESISTANCE COEFFICIENT (μ) ACCORDING TO ISO 12572	> 9.000
WORKING TEMPERATURE	-80°C to +110°C
FIRE RESISTANCE	EN 13501-1 Class B or Class E, DIN 4102, B2, BS 476, NF P 92 501-M1
RESISTANCE TO CHEMICAL AGENTS ACC. TO ASTM 543-56 T	Very good
SOUND ABSORPTION ACC. TO DIN 4109 300-2500Hz	~60%
DIMENSIONAL STABILITY ACCORDING TO ISO 2796 FOR TEMPERATURES UP TO 100°C	<5%

Values are listed, as obtained under standard laboratory conditions and may be amended, without prior notice.

Standard Dimensions according to EN 12735-1

Copper tube external diameter	Inch	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8
	mm	4,76	6,35	7,94	9,52	12,70	15,87	19,05	22,23
Copper tube wall thickness	mm	0,80	0,80	0,80	0,80	0,80	1,00	1,00	1,00
Overall external diameter with 9mm thick insulation	mm	22,76	24,35	25,94	27,52	30,70	33,87	37,05	40,23
Maximum permitted operating pressure	bar	234	167	130	106	78	78	64	55

Marking

