

Type of Material	Flexible elastomeric foam insulation with significantly high percentage, 98.5%, of closed - cells, available with ISOPIPE HT-HF Insulation and SOLAR protective Covering in White and Black Colour, single or twin, with or without cable.
Product Range	Tubes in coils section with thicknesses from 9 mm to 19 mm and diameters from 12 mm to 35 mm.
Fields of Application	Thermal insulation for refrigeration, air conditioning and heating & plumbing services in commercial, industrial and domestic applications.
Dimensional Tolerances	In accordance with the European Standard EN 14304 table 1.
Environmental Information	Flexible and expanded rubber foam free of CFC and HCFC
Storage & self-time	Material shall be stored indoors, in clean and dry conditions, away from direct sunlight. Self-adhesive tapes, self-adhesive sheets, self-adhesive tubes, self-adhesive rolls: 1 year

Technical Specifications of the insulation

Properties	Technical Data	Test Methods
Thermal Conductivity (λ)	0°C - 0.040 W/mk	EN ISO 8497
	40°C - 0.045 W/mk	
Permeability (μ)	≥ 4000	EN 13469, EN 12086
Operating Temperatures (°C)	-50°C to +150°C (+175°C)	EN 14707, EN 14706
Fire Rating (FR)	Euroclass E	EN 13501-1
Weather Resistance	Good	
Oil & Grease Resistance	Very good	ASTM D 471
UV Resistance	Very good	ISO 4892-2
Noise Reduction	Up to 30dB	DIN 4109
Halogen	Free	DIN VDE 0472 - section 815
PVC-ODP zero	Free	
CFC, HFC, HCFC	Free	
Odor	Neutral	

Technical Specifications of the external covering

Properties	Technical Data	Test Methods
Thickness of film	< 0.40mm: ± 0.1 mm	DIN 53370
Colour of SOLAR Film	White,Black	

Technical Specifications of the sensor cable

Conductor Nominal Cross-Sectional Area	External Diameter (Max.)	Net Weight (Approx.)	Insulation Thickness
mm ²	mm	Kg/Km	mm
2 x 0.75	3.2 x 6.4	30	0.8

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH
Technical Specifications of the INOX Flexible Pipe AISI-316L

DN	Internal diameter	Outer Diameter	Tolerance	Minimum Bending Radius	Nominal Bending Radius	Operation Pressure	Nominal Pressure (PN)	Operating Temperatures
	mm	mm	mm	r _{min} (mm)	r _n (mm)	P1 (bar) 20°C/ SF3	DIN EN ISO 10380/ SF4	°C
12	11.8	15.8		20	165	21	16	-270°C to +700°C
16	16.6	21.4	0.2	25	195	13	10	
20	20.9	26.4		30	225	13	10	
25	25.1	31.8		35	260	8	6	

Technical Specifications of the Unaveld PE

External Diameter	Internal Diameter	Thickness	Meters/coil
Polyethylene 5 Layer Pipe			
Φ16	12 mm	2 mm	100 m
Φ18	14 mm	2 mm	100 m
Φ18	13 mm	2,5 mm	100 m

Technical Characteristics	
Maximum Operating Temperature	+95°C / +110°C (1 year)
Operating Conditions for Heating Installations (Class 4, Class 5)	6 bar at +95°C with minimum lifetime 50 years
Operating Conditions for Hot Water Supply Installations (Class 1, Class 2)	10 bar at +60°C with minimum lifetime 50 years
Thermal Conductivity Coefficient	0,04 w/mk
Linear Expansion Percentage	0.3% at +50°C 0.7% at +90°C
Oxygen Permeability	0.01 g/m³d (According to DIN 4726)
Radius	Φ 6-18 diameter pipe x 5, Φ 18-32 diameter pipe x 8

Technical Specifications of the Unaveld PERT-AL-PERT

External Diameter	Thickness	Aluminum Thickness	Meters/coil
PERT-AL-PERT Pipe, Coil, in White Colour*			
Φ16	2 mm	0,20 mm	100 m
Φ18	2 mm	0,25 mm	100 m
Φ20	2 mm	0,25 mm	100 m
Φ20	2,5 mm	0,25 mm	100 m
Φ26	3 mm	0,30 mm	50 m
Φ32	3 mm	0,50 mm	50 m
PERT-AL-PERT Pipe, Coil, in Black Colour*			
Φ16	2 mm		100 m

Technical Characteristics	
Operating Temperatures (Maximum / Momentarily)	+95°C / +100°C
Operating Pressure	10 bar at +95°C 20 bar at +5°C
Lifetime	50 years
Thermal Conductivity Coefficient	0.43 W/mK
Linear Expansion Coefficient	0.026 mm/mK
Internal Harshness	0.007mm
Oxygen Permeability	10,00%/ mg (According to DIN 4726)
Adhesion Properties between Layers	Adhesion >80 N/cm ²
Radius (R)	Nominal Diameter DN x 6

The mentioned values are these which have been measured in our laboratory, under typical conditions.

They can be modified without prior notice. You are kindly requested to assert their validity before any special use.