



DATA SHEET PRE-INSULATED PIPES

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FV Plast pre-insulated pipe is a flexible pre-insulated system for distribution. A unique 5-layer pipe combining all the advantages of polyethylene and metal pipes. The outer and inner layers are made of modern PE-RT material, which exhibits excellent temperature and mechanical resistance. The AL layer ensures temperature, pressure resistance and formability of the tube with an oxygen barrier. The pipe is insulated in polyethylene insulating foam. The casing is made of a serrated and durable LDPE film.

DATA SHEET PIPE MULTIPERT – AL:

TECHNICAL PARAMETERS:

- Maximum operating temperature 80°C, short-term possible temperature 95°C (for 100 hours)
- Material composition PE-RT/Al/PE-RT (polyethylene/ aluminum layer with EVOH barrier/ polyethylene)
- Applicable for water distribution (including potable water certification), heating, cooling and industrial applications
- Easy formability and shape stability
- Unchanged hardness and impact resistance up to -40°C

Type Tube	MULTIPERT -AL			
Pipe size (mm)	16 x 2,0	20 x 2,0	26 x 3,0	32 x 3,0
Inner dimension (mm)	12	16	20	26
Pipe weight (kg/m)	0,105	0,123	0,271	0,373
Water volume l/m	0,11	0,2	0,31	0,53
Material	PE-RT (typ II) / Al / PE-RT (typ II)			
Pipe composition	polyethylene / aluminum layer (min. 0.2 mm) / polyethylene			
Packaging	wheels (coils)			
Fire classification	E dle DIN EN 13501 - 1			
Maximum operating temperature	80 °C			
Short-term thermal load	95 °C for 100 hours of service life			
Operating temperature range	- 40°C až + 95°C			
Maximum operating pressure	10 bar			
Thermal conductivity coefficient	0,45 W/m.K			
Oxygen permeability	0 g/m ³ per day			
Coefficient of longitudinal expansion	0,026 mm/m.K			
Relative roughness coefficient	0,007 mm			
Color	Bílá			
Minimum bending radius	5 x outer diameter of the pipe			
Minimum temperature for installation	above 0 °C (recommended temperature for installation at least +5 °C)			

Tel.: +420 326 706 711
Fax: +420 326 706 721

FV - Plast, a.s., Kozovazská 1049/3, 250 88 Čelákovice, GPS: 50°9'26.878"N, 14°45'17.934"E
Billing address: FV Plast, a.s., Pod Harfou 3/3, 190 00 Praha 9

IČO 26167654
DIČ CZ26167654
Municipal Court in Prague, section B, insert 6480
www.fv-plast.cz
fv-plast@fv-plast.cz



PIPE INSULATION DATA SHEET

Insulation from polyethylene insulating foam with closed cells. Manufactured wall thickness 6,9, 13 and 20 mm. The knurled outer protective film has deep ribbing that enables a stable and permanent connection to the wall material. The high quality of the corrugated foil gives the insulation greater resistance to breakage, tearing, punctures and abrasion. The outer foil also ensures a perfect seal against the penetration of moisture into the insulation. Excellent chemical resistance of the insulation. Available in red or blue.

Insulation properties:

Material: Polyethylene foam with closed cells (EPE), produced without containing (H)CFCs, with resistance to water vapor diffusion

Density: 30 kg/m³ (+/- 10 %)

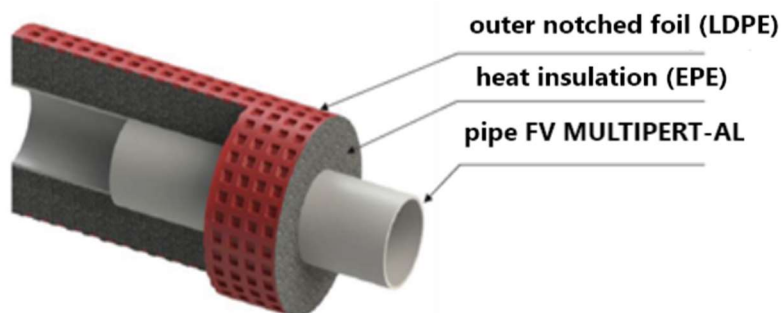
Thermal conductivity (λ): 0,039 W/mK

Water vapor resistance: 3,170 μ

Water absorption: B - 1 %

Minimum operating temperature: - 50 °C

Maximum working temperature: + 80 °C



Outer notched foil:

Material: Polyethylen (LDPE)

Colors: red, blue





Insulation parameters:

Characteristics	Test method	Requirement	Tolerance - value:
Length	EN 13467	20m and more	from -1,5 % to + 2,5%
Inner diameter	EN 13467	$D_i \leq 35 \text{ mm}$	+1 to + 4mm
Thickness	EN 13467	$t \leq 6 \text{ mm}$	$\pm 1,0 \text{ mm}$
		$6 < t \leq 10 \text{ mm}$	$\pm 1,5 \text{ mm}$
		$10 < t \leq 15 \text{ mm}$	$\pm 2 \text{ mm}$
Density	EN 13470	30 kg/m ³	$\pm 5 \text{ kg/m}^3$
Dimensional stability at 23 °C and 48 hours	EN 1604	long	2,0 %
		thickness	3,0 %
Reaction to fire	EN 13501-1	F a E	(-)
Maximum operating temperature	EN 1604 / EN 14707	+ 90°C	5°C
Minimum operating temperature	EN 1604 / EN 14707	- 50°C	10°C
Water absorption	EN 13472	0,2 kg/m ²	$\pm 0,05 \text{ kg/m}^2$
Thermal conductivity coefficient	EN ISO 8497	0,039 W/m.K	0,001 W/m.K
Trace amounts of water-soluble ions and pH	EN 13468	pH 7	0,5 (-)
Resistance to water vapor diffusion	EN 13469	$\mu > 3000$	50 (-)



Pre-insulated pipes in blue insulation - order codes and packaging:

<i>Inner pipe</i>	<i>Insulation thickness (mm)</i>	<i>Order code FV Plast</i>	<i>Description</i>	<i>Packing (m)</i>	<i>Outer diameter</i>	<i>Thermal conductivity * (W/m)</i>
16 x 2,0	6	AA136016050	PERT blu MULTIPERT-AL ISO6 16x2,0 50m	50	28	13,13
	9	AA139016050	PERT blu MULTIPERT-AL ISO9 16x2,0 50m	50	34	9,75
	13	AA140016050	PERT blu MULTIPERT-AL ISO13 16x2,0 50m	50	42	7,61
	20	AA141016050	PERT blu MULTIPERT-AL ISO20 16x2,0 50m	50	56	5,87
20 x 2,0	6	AA136020050	PERT blu MULTIPERT-AL ISO6 20x2,0 50m	50	28	15,63
	9	AA139020050	PERT blu MULTIPERT-AL ISO9 20x2,0 50m	50	34	11,45
	13	AA140020050	PERT blu MULTIPERT-AL ISO13 20x2,0 50m	50	42	8,82
	20	AA141020050	PERT blu MULTIPERT-AL ISO20 20x2,0 50m	50	56	6,69
26 x 3,0	6	AA136026050	PERT blu MULTIPERT-AL ISO6 26x3,0 50m	50	28	18,74
	9	AA139026050	PERT blu MULTIPERT-AL ISO9 26x3,0 50m	50	34	13,55
	13	AA140026025	PERT blu MULTIPERT-AL ISO13 26x3,0 25m	25	42	10,31
	20	AA141026025	PERT blu MULTIPERT-AL ISO20 26x3,0 25m	25	56	7,69
32 x 3,0	6	AA136032025	PERT blu MULTIPERT-AL ISO6 32x3,0 25m	25	28	23,07
	9	AA139032025	PERT blu MULTIPERT-AL ISO9 32x3,0 25m	25	34	16,46
	13	AA140032025	PERT blu MULTIPERT-AL ISO13 32x3,0 25m	25	42	12,35
	20	AA141032025	PERT blu MULTIPERT-AL ISO20 32x3,0 25m	25	56	9,06

*** Average thermal conductivity (W/m) for conditions:**

- T of the flowing medium 50 °C

- T around the pre-insulated pipe 20°C

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Pre-insulated pipes in red insulation - order codes and packaging:

Inner pipe	Insulation thickness (mm)	Order code FV Plast	Description	Packing (m)	Outer diameter	Thermal conductivity * (W/m)
16 x 2,0	6	AA136116050	PERT blu MULTIPERT-AL ISO6 16x2,0 50m	50	28	13,13
	9	AA139116050	PERT blu MULTIPERT-AL ISO9 16x2,0 50m	50	34	9,75
	13	AA140116050	PERT blu MULTIPERT-AL ISO13 16x2,0 50m	50	42	7,61
	20	AA141116050	PERT blu MULTIPERT-AL ISO20 16x2,0 50m	50	56	5,87
20 x 2,0	6	AA136120050	PERT blu MULTIPERT-AL ISO6 20x2,0 50m	50	28	15,63
	9	AA139120050	PERT blu MULTIPERT-AL ISO9 20x2,0 50m	50	34	11,45
	13	AA140120050	PERT blu MULTIPERT-AL ISO13 20x2,0 50m	50	42	8,82
	20	AA141120050	PERT blu MULTIPERT-AL ISO20 20x2,0 50m	50	56	6,69
26 x 3,0	6	AA136126050	PERT blu MULTIPERT-AL ISO6 26x3,0 50m	50	28	18,74
	9	AA139126050	PERT blu MULTIPERT-AL ISO9 26x3,0 50m	50	34	13,55
	13	AA140126025	PERT blu MULTIPERT-AL ISO13 26x3,0 25m	25	42	10,31
	20	AA141126025	PERT blu MULTIPERT-AL ISO20 26x3,0 25m	25	56	7,69
32 x 3,0	6	AA136132025	PERT blu MULTIPERT-AL ISO6 32x3,0 25m	25	28	23,07
	9	AA139132025	PERT blu MULTIPERT-AL ISO9 32x3,0 25m	25	34	16,46
	13	AA140132025	PERT blu MULTIPERT-AL ISO13 32x3,0 25m	25	42	12,35
	20	AA141132025	PERT blu MULTIPERT-AL ISO20 32x3,0 25m	25	56	9,06

*** Average thermal conductivity (W/m) for conditions:**

- T of the flowing medium 50 °C

- T around the pre-insulated pipe 20°C

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WARRANTY TERMS:

During assembly, the safety regulations contained in valid regulations and standards must be observed. The supplier provides a statutory warranty from the date of purchase under the following conditions:

- The product must be used for the purpose for which it was intended.
- The product must be properly stored, stored and handled.
- Installation is carried out by a qualified person, according to general principles, standards and of the technical regulations of FV - Plast, a.s.

The properties of the above product are in accordance with the set of declared properties. This declaration of properties is issued in accordance with Regulation (EU) No. 305/2011 and is under the sole responsibility of the above manufacturer. These are products intended for distribution of media with thermal insulation for the equipment of buildings and industrial installations with an operating temperature in the range of approximately -50 °C to + 95 °C.

SUPPLIER:

FV – Plast, a.s.
Kozovazská 1049/3
250 88 Čelákovice

www.fv-plast.cz
www.fv-therm.cz
fv-plast@fv-plast.cz