

PIPE

ROMAPLUS | PE-RT / PE-RT EVOH

ROMAPLUS is a pipe made of a specially modified high density polyethylene – PERT type II, with a unique molecular structure and crystalline microstructure composition which ensures very good thermal stability, high degree of mechanical strength up to temperatures of 90°C and a good long term hydrostatic strength behaviour.

PE-RT type II is polyethylene octane copolymer, a new family of polyethylene raw materials, with excellent stress cracking resistance, outstanding long-term hydrostatic strength, and excellent processability without need for crosslinking

ROMAPLUS can be supplied in a monolayer without an oxygen barrier – PE-RT type II, or a multilayer pipe with an oxygen barrier – PE-RT type II w/EVOH.



Pipe certification.

APPLICATIONS

- Underfloor heating and cooling systems;
- Wall heating and cooling systems;
- Ceiling heating and cooling systems;
- Heating and cooling systems in general;
- Drinking supply water systems.

ADVANTAGES AND KEY FEATURES

	HIGH TEMPERATURE AND PRESSURE RESISTANCE
	GOOD RESISTANCE TO STRESS CRACKING
	HIGH TRACTION RESISTANCE
	HIGH CHEMICAL RESISTANCE
	NO CORROSION OR ENCRUSTATION
	EASY TO INSTALL
	LIGHTWEIGHT AND FLEXIBLE
	DRINKABLE WATER APPLICATIONS
	OXYGEN DIFFUSION BARRIER
	EVOH COLOURED
	SUPPLIED IN COILS
	RECYCLABLE
	ECO-FRIENDLY
	NATIONAL AND INTERNATIONAL CERTIFICATIONS

PE-RT PRODUCTS

HELIROMA - Plásticos, S.A.
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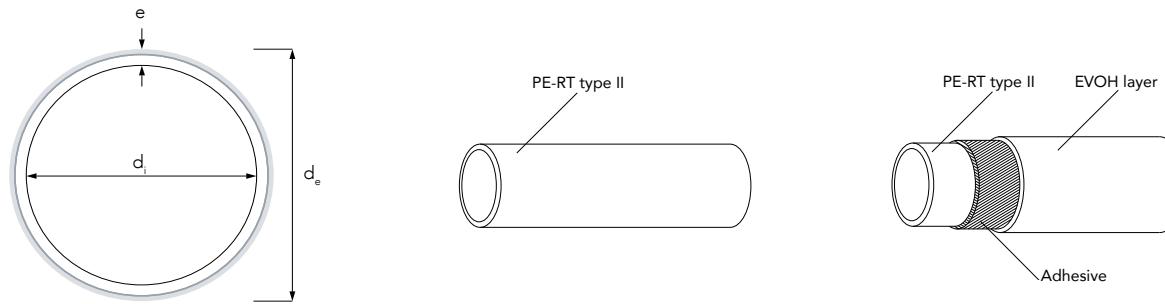
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GROUP



PIPE

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PRODUCT RANGE AND GEOMETRY



REFERENCE	DIMENSION	EXTERNAL DIAMETER d_e (mm)		THICKNESS e (mm)		INNER DIAMETER d_i (mm)	WEIGHT (Kg/m)	SINGLE LAYER	EVOH	SERIES
		min	max	min	max					
P-002012-RT	12x2,0	12	12,3	2,0	2,2	8,0	0,063	✓ ⁽¹⁾		2.5
P-011016-RT	16x1,8	16	16,3	1,8	2,1	12,4	0,090	✓	✓	4.0
P-001016-RT	16x2,0	16	16,3	2,0	2,2	12,0	0,090	✓	✓	3.5
P-001017-RT	17x2,0	17	17,3	2,0	2,3	13,0	0,094		✓ ⁽¹⁾	3.8
P-011020-RT	20x1,9	20	20,3	1,9	2,2	16,2	0,121		✓	5.0
P-001020-RT	20x2,0	20	20,3	2,0	2,3	16,0	0,116	✓	✓	4.5
P-001025-RT	25x2,3	25	25,3	2,3	2,7	20,4	0,165	✓		5.0
P-001032-RT	32x2,9	32	32,3	2,9	3,3	26,2	0,266	✓ ⁽¹⁾		5.0

Note: standard colour: natural. Other colours on demand.

⁽¹⁾ Available on demand.

EVOH PROPERTIES

The **Oxygen Barrier** is provided by an ethylene vinyl alcohol – EVOH layer prevents oxygen permeability in the system which reduces corrosion within the system, thus reducing premature failing of system components.

The EVOH layer provides excellent functional barrier against organic solvents and gases. With its exceptional elasticity it protects the product integrity. The **Oxygen Barrier** seals the oxygen access, therefore increasing the installation life expectancy. In a multilayer pipe, all layers are connected permanently via adhesive.

PHYSICAL AND CHEMICAL PROPERTIES

PARAMETER	VALUE	STANDARD
DENSITY	941 kg/cm ³	ISO 1183
MFI - 190°C/5.00 kg	1,9 g/10min	ISO 1133
TENSILE MODULUS	645 MPa	ISO 527
TENSILE STRESS AT YIELD	20,3 MPa	ISO 527
TENSILE STRESS AT BREAK	37 MPa	ISO 527
FLEXURE MODULUS	660 MPa	ISO 178
VICAT SOFTENING TEMPERATURE	125°C	ISO 178
ROUGHNESS	0,007 mm	ISO 5436
OIT	≥ 40 min	ISO 11357
THERMAL CONDUCTIVITY	0,35 W/m K	DIN 52612
THERMAL EXPANSION COEFFICIENT	1,8x10 ⁻⁴ m/m °C	VDE 0304
LINEAR COEFFICIENT	0,026 mm/m K	
FIRE CLASSIFICATION	B2	DIN 4102
SMALLEST BEND RADIUS	5 x d_e (mm)	DIN 4721



LEAKAGE TEST

All HELIROMA products must be submitted to a leakage test as per procedures stated in [HR Technical Catalogue](#).

The product warranty is only valid if the leakage test has been performed, on the date the system has been installed.

STANDARDS

ISO 22391

Plastics piping systems for hot and cold water installations
— Polyethylene of raised temperature resistance (PE-RT).

DIN 16833

Polyethylene pipes of raised temperature resistance (PE-RT)
- PE-RT Type I and PE-RT Type II - General quality requirements testing.

DIN 16834

Polyethylene pipes of raised temperature resistance (PE-RT)
- PE-RT Type I and PE-RT Type II - Dimensions

RP01.67

Rules for plastic piping systems for hot and cold water installations. Temperature resistant polyethylene (PE-RT).

PARAMETER	VALUE	STANDARD
OTR - 20°C, 0% RH	0.2 cm ³ .20μm/m ² .day.atm	
OTR - 20°C, 65% RH	0.4 cm ³ .20μm/m ² .day.atm	
OTR - 20°C, 85% RH	1.5 cm ³ .20μm/m ² .day.atm	ASTM D3985
OTR - 20°C, 100% RH	1.9 cm ³ .20μm/m ² .day.atm	

APPLICATION CLASS	P _D (bar) SERIES					
	2.5	3.2	3.5	4.0	4.5	5.0
1	10	10	8	6	6	6
2	10	8	8	6	6	6
4	10	8	8	6	6	8
5	10	8	6	6	4	6