



Multilayer PE- Xb/Al/PE- Xb pipe in coils with insulation

► IVAR-APEX RCB / RCR

Five-layer PE-Xb metal-plastic pipe complete with blue or red thermal insulation

■ PRESENTATION



IVAR APEX RCB and RCR pipes have a structure characterized as follows: inner layer of silane cross-linked polyethylene PE-Xb that remains in contact with the fluid to be distributed, high-performance adhesive film, aluminium (Al) layer longitudinally and homogeneously welded end to end using laser technology, high-performance adhesive film, outer layer of silane cross-linked polyethylene PE-Xb that guarantees excellent protection from external agents. The pipe is compliant for applications in heating systems as well as for the transport of drinking water.

The pipes are supplied complete with blue or red insulation with thermal conductivity of the insulation layer of 0.0397 W/m°C. The insulation thickness is 6 mm for pipes with a diameter of 16 or 18 mm. For larger diameters, such as 25, 26 and 32 mm, the thickness is 10 mm.

■ RANGE

The catalogue offer includes IVAR-APEX RCB and RCR pipes in the following thicknesses and packaging, with blue or red insulation:

- Ø 16 x 2 mm - coils of 50 metres;
- Ø 20 x 2 mm - coils of 50 metres;
- Ø 25 x 2.5 mm - coils of 25 metres;
- Ø 26 x 3 mm - coils of 50 metres;
- Ø 32 x 3 mm - coils of 25 metres.

■ TECHNICAL DETAILS

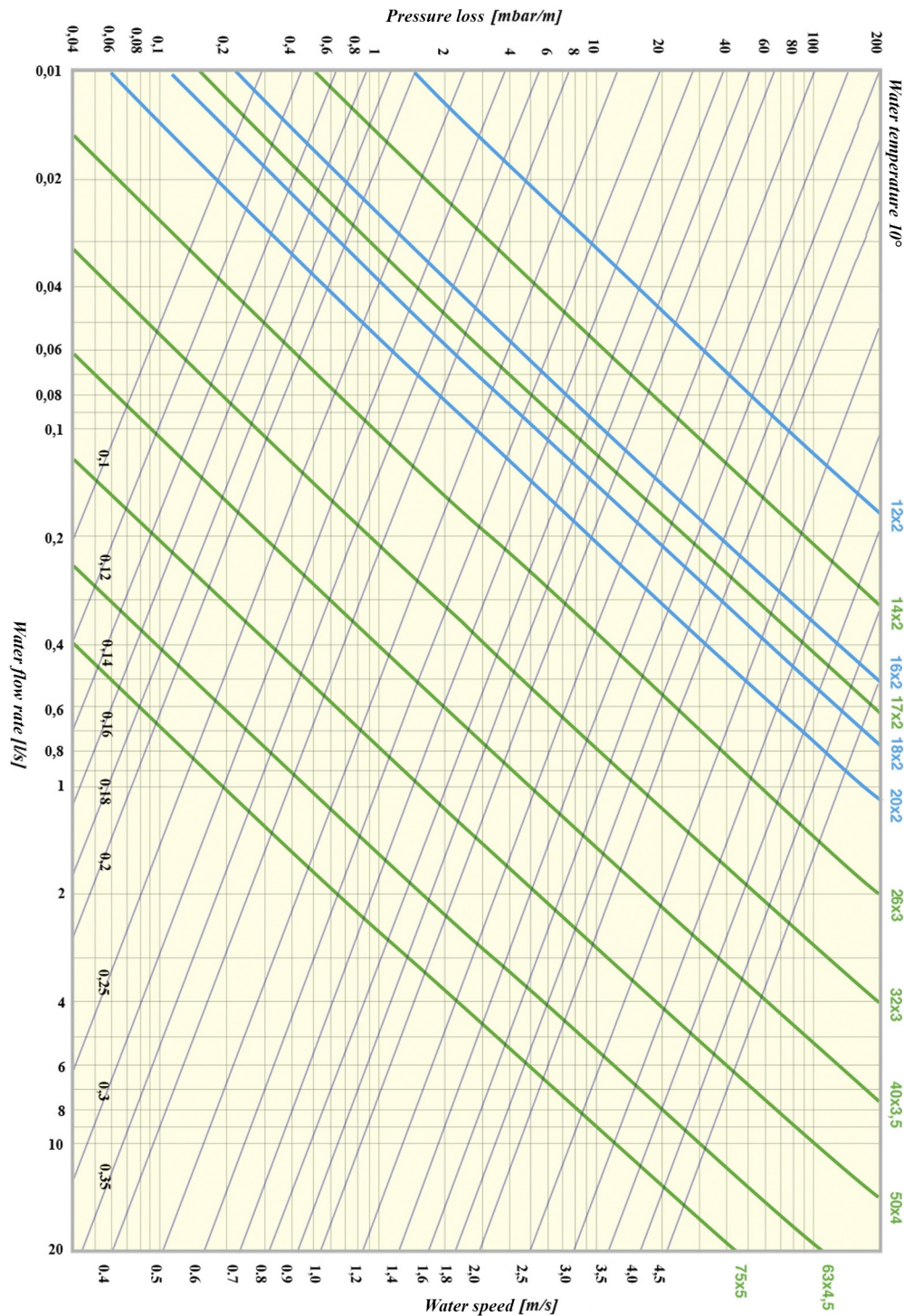
Pipe diameter and thickness (mm)	16 x 2	20 x 2	25 x 2.5	26 x 3	32 x 3
Outer diameter (mm)	16	20	25	26	32
Inner diameter (mm)	11.9	15.9	20	20	26
Aluminium thickness (mm)	0.2	0.24	0.3	0.3	0.5
Linear expansion coefficient (mm/mK)	0.026	0.026	0.026	0.026	0.026
Thermal conductivity (W/mK)	0.4	0.4	0.4	0.4	0.4
Peak temperature (°C)	100	100	100	100	100
Allowable maximum operating temperature (bar)	10	10		10	10
Water volume (l/min)	0.113	0.201	0.314	0.314	0.531
Bending radius without tools (mm)	80	100	110	110	160
Bending radius with bending tool (mm)	45	60		95	125
Internal surface roughness (mm)	0.007	0.007	0.007	0.007	0.007
Density (g/cm ³)	0.942	0.942	0.942	0.942	0.942
Thermal conductivity of external insulation (W/mK)	0.0397	0.0397	0.0397	0.0397	0.0397
Insulation thickness (mm)	6	6	10	10	10

■ APPLICATION CLASSES ACCORDING TO UNI EN 21003

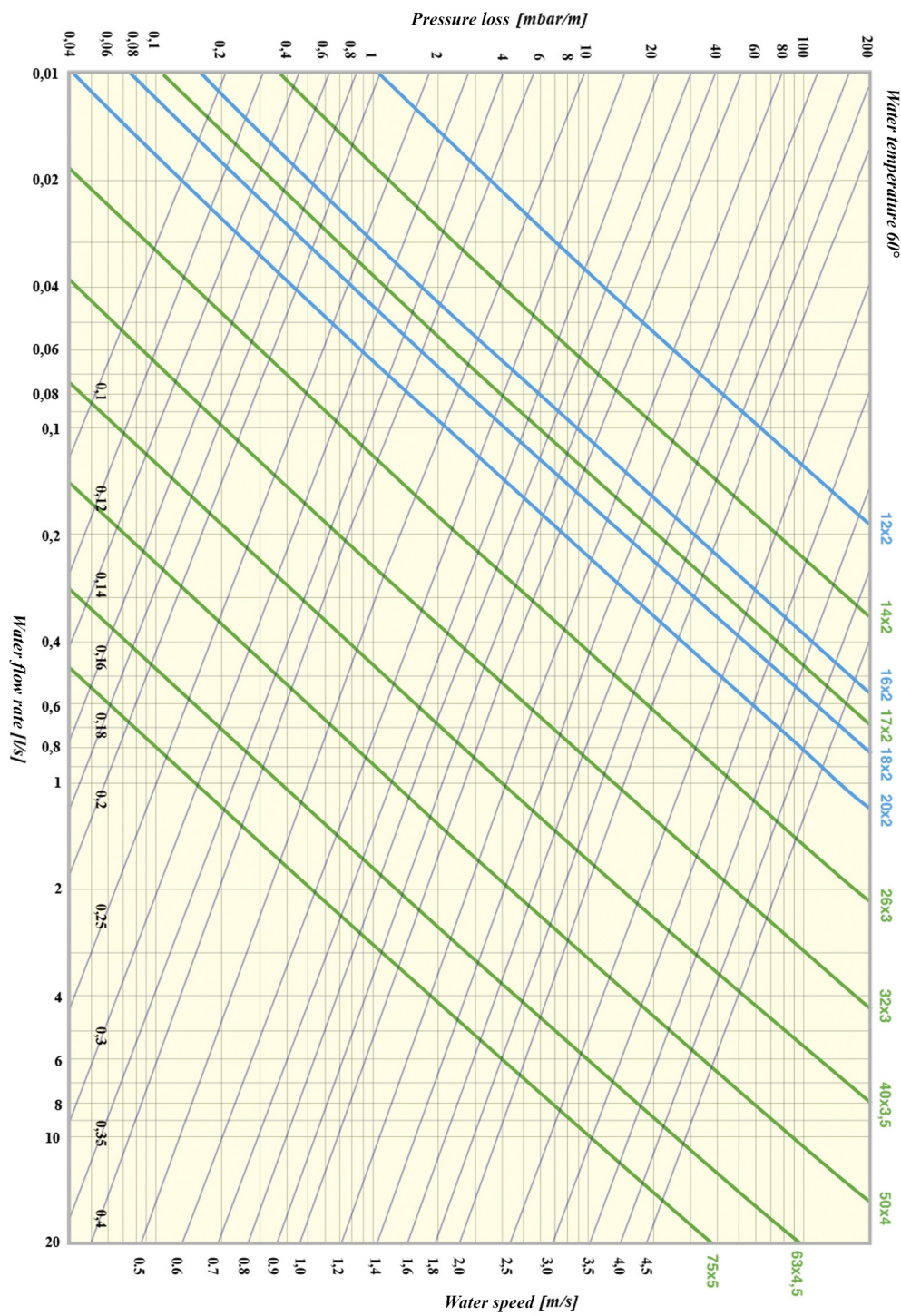
Application class	Operating temperature Td (°C)	Time at Td (years)	Tmax (°C)	Time at Tmax (years)	Tmal (°C)	Time at Tmal (hours)	Application
1 ^a	60	49	80	1	95	100	DHW (60 °C)
2 ^a	70	49	80	1	95	100	DHW (70 °C)
4 ^b	20	2.5	70	2.5	100	100	Underfloor heating and low temperature radiators
	40	20					
	60	25					
5 ^b	20	14	90	1	100	100	High temperature radiator heating
	60	25					
	80	10					

■ PRESSURE LOSS CHARTS

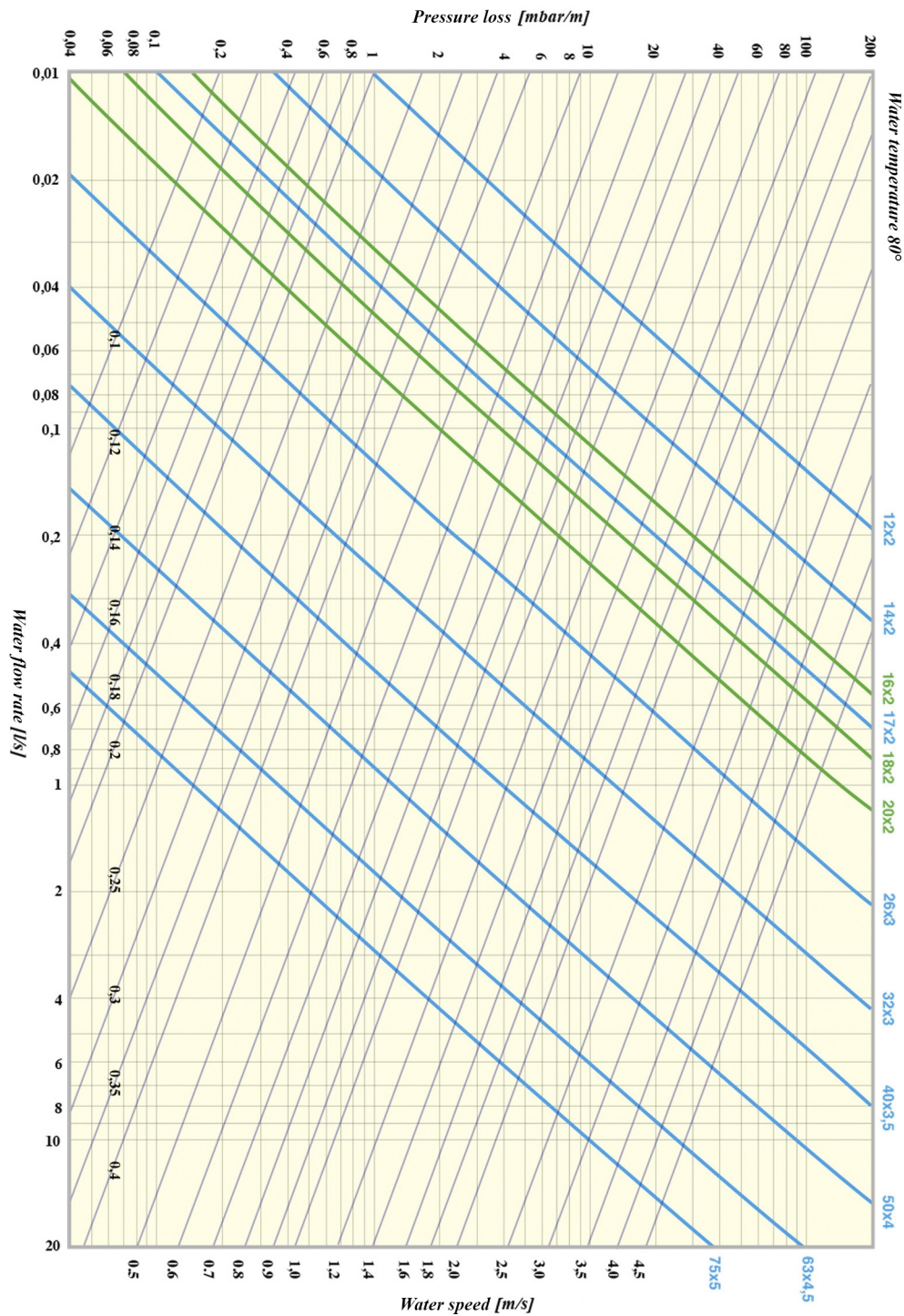
Continuous pressure drop chart for water transport at 10 °C



Continuous pressure drop chart for water transport at 60 °C



Continuous pressure drop chart for water transport at 80 °C



For more information and continuous pressure drop table formats of IVAR APEX , contact IVAR Linea Arancio.

■ SPECIFICATION SUMMARY

IVAR IVAR-APEX RCB **cod. I-APEX16RCB50**: Multilayer pipe with the following structure: inner layer of silanese-crosslinked polyethylene PE-Xb, adhesive film, intermediate layer of longitudinally and homogeneously butt welded aluminium, outer layer of silanese-crosslinked polyethylene PE-Xb. Coefficient of linear thermal expansion: 0.026 mm/mK. Thermal conductivity: 0.4 W/mK. Permissible peak temperature: 100 °C. Maximum allowable pressure: 10 bar. Internal roughness: 0.007 mm. Diameter: 16 mm. Thickness: 2 mm . Coil: 50 m. Blue insulation with thermal conductivity: 0.0397 W/mK. Insulation thickness: 6 mm.

IVAR IVAR-APEX RCB **cod. I-APEX20RCB50**: Multilayer pipe with the following structure: inner layer of silanese-crosslinked polyethylene PE-Xb, adhesive film, intermediate layer of longitudinally and homogeneously butt welded aluminium, outer layer of silanese-crosslinked polyethylene PE-Xb. Coefficient of linear thermal expansion: 0.026 mm/mK. Thermal conductivity: 0.4 W/mK. Permissible peak temperature: 100 °C. Maximum allowable pressure: 10 bar. Internal roughness: 0.007 mm. Diameter: 20 mm. Thickness: 2 mm . Coil: 50 m. Blue insulation with thermal conductivity: 0.0397 W/mK. Insulation thickness: 6 mm.

IVAR IVAR-APEX RCB **cod. I-APEX25RCB25**: Multilayer pipe with the following structure: inner layer of silanese-crosslinked polyethylene PE-Xb, adhesive film, intermediate layer of longitudinally and homogeneously butt welded aluminium, outer layer of silanese-crosslinked polyethylene PE-Xb. Coefficient of linear thermal expansion: 0.026 mm/mK. Thermal conductivity: 0.4 W/mK. Permissible peak temperature: 100 °C. Maximum allowable pressure: 10 bar. Internal roughness: 0.007 mm. Diameter: 25 mm. Thickness: 2.5 mm . Coil: 25 m. Blue insulation with thermal conductivity: 0.0397 W/mK. Insulation thickness: 10 mm.

IVAR IVAR-APEX RCB **cod. I-APEX26RCB50**: Multilayer pipe with the following structure: inner layer of silanese-crosslinked polyethylene PE-Xb, adhesive film, intermediate layer of longitudinally and homogeneously butt welded aluminium, outer layer of silanese-crosslinked polyethylene PE-Xb. Coefficient of linear thermal expansion: 0.026 mm/mK. Thermal conductivity: 0.4 W/mK. Permissible peak temperature: 100 °C. Maximum allowable pressure: 10 bar. Internal roughness: 0.007 mm. Diameter: 26 mm. Thickness: 3 mm . Coil: 50 m. Blue insulation with thermal conductivity: 0.0397 W/mK. Insulation thickness: 10 mm.

IVAR IVAR-APEX RCB **cod. I-APEX32RCB25**: Multilayer pipe with the following structure: inner layer of silanese-crosslinked polyethylene PE-Xb, adhesive film, intermediate layer of longitudinally and homogeneously butt welded aluminium, outer layer of silanese-crosslinked polyethylene PE-Xb. Coefficient of linear thermal expansion: 0.026 mm/mK. Thermal conductivity: 0.4 W/mK. Permissible peak temperature: 100 °C. Maximum allowable pressure: 10 bar. Internal roughness: 0.007 mm. Diameter: 32 mm. Thickness: 3 mm . Coil: 25 m. Blue insulation with thermal conductivity: 0.0397 W/mK. Insulation thickness: 10 mm.

IVAR IVAR-APEX RCR **cod. I-APEX16RCR50**: Multilayer pipe with the following structure: inner layer of silanese-crosslinked polyethylene PE-Xb, adhesive film, intermediate layer of longitudinally and homogeneously butt welded aluminium, outer layer of silanese-crosslinked polyethylene PE-Xb. Coefficient of linear thermal expansion: 0.026 mm/mK. Thermal conductivity: 0.4 W/mK. Permissible peak temperature: 100 °C. Maximum allowable pressure: 10 bar. Internal roughness: 0.007 mm. Diameter: 16 mm. Thickness: 2 mm . Coil: 50 m. Red insulation with thermal conductivity: 0.0397 W/mK. Insulation thickness: 6 mm.

IVAR IVAR-APEX RCB **cod. I-APEX20RCR50**: Multilayer pipe with the following structure: inner layer of silanese-crosslinked polyethylene PE-Xb, adhesive film, intermediate layer of longitudinally and homogeneously butt welded aluminium, outer layer of silanese-crosslinked polyethylene PE-Xb. Coefficient of linear thermal expansion: 0.026 mm/mK. Thermal conductivity: 0.4 W/mK. Permissible peak temperature: 100 °C. Maximum allowable pressure: 10 bar. Internal roughness: 0.007 mm. Diameter: 20 mm. Thickness: 2 mm . Coil: 50 m. Red insulation with thermal conductivity: 0.0397 W/mK. Insulation thickness: 6 mm.

IVAR IVAR-APEX RCB **cod. I-APEX25RCR25**: Multilayer pipe with the following structure: inner layer of silanese-crosslinked polyethylene PE-Xb, adhesive film, intermediate layer of longitudinally and homogeneously butt welded aluminium, outer layer of silanese-crosslinked polyethylene PE-Xb. Coefficient of linear thermal expansion: 0.026 mm/mK. Thermal conductivity: 0.4 W/mK. Permissible peak temperature: 100 °C. Maximum allowable pressure: 10 bar. Internal roughness: 0.007 mm. Diameter: 25 mm. Thickness: 2.5 mm . Coil: 25 m. Red insulation with thermal conductivity: 0.0397 W/mK. Insulation thickness: 10 mm.

IVAR IVAR-APEX RCB **cod. I-APEX26RCR50**: Multilayer pipe with the following structure: inner layer of silanese-crosslinked polyethylene PE-Xb, adhesive film, intermediate layer of longitudinally and homogeneously butt welded aluminium, outer layer of silanese-crosslinked polyethylene PE-Xb. Coefficient of linear thermal expansion: 0.026 mm/mK. Thermal conductivity: 0.4 W/mK. Permissible peak temperature: 100 °C. Maximum allowable pressure: 10 bar. Internal roughness: 0.007 mm. Diameter: 26 mm. Thickness: 3 mm . Coil: 50 m. Red insulation with thermal conductivity: 0.0397 W/mK. Insulation thickness: 10 mm.

IVAR IVAR-APEX RCB **cod. I-APEX32RCR25**: Multilayer pipe with the following structure: inner layer of silanese-crosslinked polyethylene PE-Xb, adhesive film, intermediate layer of longitudinally and homogeneously butt welded aluminium, outer layer of silanese-crosslinked polyethylene PE-Xb. Coefficient of linear thermal expansion: 0.026 mm/mK. Thermal conductivity: 0.4 W/mK. Permissible peak temperature: 100 °C. Maximum allowable pressure: 10 bar. Internal roughness: 0.007 mm. Diameter: 32 mm. Thickness: 3 mm . Coil: 25 m. Red insulation with thermal conductivity: 0.0397 W/mK. Insulation thickness: 10 mm.

■ CODES

IVAR-APEX RCB

I-APEX16RCB50	Multilayer PE-Xb/Al/PE-Xb pipe in coils with insulation. Colour: blue. Diameter: 16 mm. Packaging: 50 metres.
I-APEX20RCB50	Multilayer PE-Xb/Al/PE-Xb pipe in coils with insulation. Colour: blue. Diameter: 18 mm. Packaging: 50 metres.
I-APEX25RCB25	Multilayer PE-Xb/Al/PE-Xb pipe in coils with insulation. Colour: blue. Diameter: 25 mm. Packaging: 25 metres.
I-APEX26RCB50	Multilayer PE-Xb/Al/PE-Xb pipe in coils with insulation. Colour: blue. Diameter: 26 mm. Packaging: 50 metres.
I-APEX32RCB25	Multilayer PE-Xb/Al/PE-Xb pipe in coils with insulation. Colour: blue. Diameter: 32 mm. Packaging: 25 metres.

IVAR-APEX RCR

I-APEX16RCR50	Multilayer PE-Xb/Al/PE-Xb pipe in coils with insulation. Colour: red. Diameter: 16 mm. Packaging: 50 metres.
I-APEX20RCR50	Multilayer PE-Xb/Al/PE-Xb pipe in coils with insulation. Colour: red. Diameter: 18 mm. Packaging: 50 metres.
I-APEX25RCR25	Multilayer PE-Xb/Al/PE-Xb pipe in coils with insulation. Colour: red. Diameter: 25 mm. Packaging: 25 metres.
I-APEX26RCR50	Multilayer PE-Xb/Al/PE-Xb pipe in coils with insulation. Colour: red. Diameter: 26 mm. Packaging: 50 metres.
I-APEX32RCR25	Multilayer PE-Xb/Al/PE-Xb pipe in coils with insulation. Colour: red. Diameter: 32 mm. Packaging: 25 metres.

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