

Water-bearing pipe 12x1,3mm RIVIERA System

Flexible pipe (PB 12×1.3 mm) according to DIN 16968 as thermal regulation device for the RIVIERA system

Oxygen impermeability acc. to DIN 4726

Characteristics

Flexible pipe as thermal regulation device for installation in the RIVIERA System, PB 12 x 1,3 mm.

Material

Three-layered polybutene.

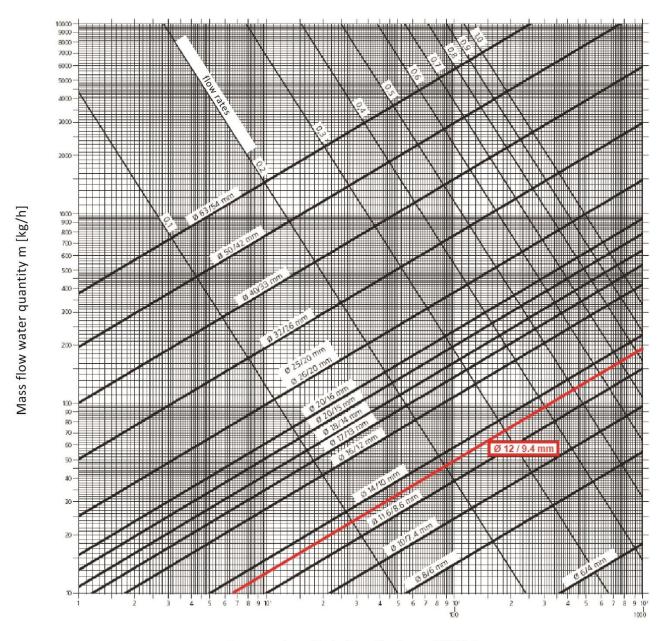
Key figures (According to DIN required values in brackets)

Pipe wall thickness Rohrinnendurchmesser 9,4 mm Smallest bend radius without bending aid 60 mm Density 0,920 g/cm³ Weight per meter 42 g/m Water content 0,069 l/m Linear expansion coefficient 7,0059 m² K/W Thermal admission resistance 7,0059 m² K/W Thermal conductivity at 20°C acc. to DIN 52612 Maximum operative temperature, over 50 years Maximum operative temperature, max. 1 year Fail-safe temperature, max. 100 hours Maximum operating pressure, Application grade 4/5 Inner surface roughness 0,007 mm 0xygen impermeability acc. to DIN 4726 Tensile stress at yield acc. to ISO 527 Tensile strength acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance outer diameter 1,03/-0 mm Tolerance wall thickness 4,02/-0 mm	Outer pipe diameter	12 mm
Smallest bend radius without bending aid Density O,920 g/cm³ Weight per meter 42 g/m Water content Unear expansion coefficient Thermal admission resistance Thermal conductivity at 20°C acc. to DIN 52612 O,22 W/mK Maximum operative temperature, over 50 years Maximum operative temperature, max. 1 year Fail-safe temperature, max. 100 hours Maximum operating pressure, Application grade 4/5 Inner surface roughness Oxygen impermeability acc. to DIN 4726 Cyagen impermeability acc. to DIN 4726 Tensile stress at yield acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance wall thickness 40,0 mm 42 g/m 70°C 90°C 8 bar 90°C 8 bar 90°C 70°C 90°C 90°C 8 bar 90°C 8 bar 90°C 8 bar 90°C 9	Pipe wall thickness	1,3 mm
Density Weight per meter 42 g/m Water content Under expansion coefficient Thermal admission resistance Thermal conductivity at 20°C acc. to DIN 52612 Maximum operative temperature, over 50 years Maximum operative temperature, max. 1 year Maximum operative temperature, max. 1 year Maximum operating pressure, Application grade 4/5 Inner surface roughness Oxygen impermeability acc. to DIN 4726 Tensile stress at yield acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance wall thickness O,069 I/m O,069 I/m O,069 I/m O,069 I/m O,0059 m² K/W To,300 °C To °N MK To Van MK	Rohrinnendurchmesser	9,4 mm
Weight per meter Water content Under content Under expansion coefficient One of I/m Uniformal admission resistance One of I/m Thermal admission resistance One of I/m	Smallest bend radius without bending aid	60 mm
Water content Linear expansion coefficient Thermal admission resistance O,0059 m² K/W Thermal conductivity at 20°C acc. to DIN 52612 Maximum operative temperature, over 50 years Maximum operative temperature, max. 1 year Fail-safe temperature, max. 100 hours Maximum operating pressure, Application grade 4/5 Inner surface roughness O,007 mm Oxygen impermeability acc. to DIN 4726 Tensile stress at yield acc. to ISO 527 Tensile strength acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance wall thickness 0,007 mm 450 N/m² Tolerance wall thickness 0,007 mm 450 N/m² Tolerance wall thickness 10,007 mm	Density	0,920 g/cm ³
Linear expansion coefficient Thermal admission resistance Thermal conductivity at 20°C acc. to DIN 52612 Maximum operative temperature, over 50 years Maximum operative temperature, max. 1 year Maximum operative temperature, max. 1 year Fail-safe temperature, max. 100 hours Maximum operating pressure, Application grade 4/5 Inner surface roughness Oxygen impermeability acc. to DIN 4726 Tensile stress at yield acc. to ISO 527 Tensile strength acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance outer diameter Tolerance wall thickness O,005 m² K/W 70 °C 70 °C 70 °C 8 bar 90 °C 100 °C 8 bar 90 °C 100 °C 8 bar 90 °C 100	Weight per meter	42 g/m
Thermal admission resistance O,0059 m² K/W Thermal conductivity at 20°C acc. to DIN 52612 O,22 W/mK Maximum operative temperature, over 50 years Maximum operative temperature, max. 1 year Maximum operative temperature, max. 1 year Fail-safe temperature, max. 100 hours Maximum operating pressure, Application grade 4/5 Inner surface roughness O,007 mm Oxygen impermeability acc. to DIN 4726 Tensile stress at yield acc. to ISO 527 Tensile strength acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance outer diameter Tolerance wall thickness 0,007 mm 70 °C 8 bar 90 °C 8 bar 170 °C 8 bar 100 °C 100 °	Water content	0,069 l/m
Thermal conductivity at 20°C acc. to DIN 52612 0,22 W/mK Maximum operative temperature, over 50 years Maximum operative temperature, max. 1 year Pail-safe temperature, max. 100 hours Maximum operating pressure, Application grade 4/5 Inner surface roughness Oxygen impermeability acc. to DIN 4726 Tensile stress at yield acc. to ISO 527 Tensile strength acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance outer diameter Tolerance wall thickness 70 °C 70	Linear expansion coefficient	0,13 mm/(mK)
Maximum operative temperature, over 50 years Maximum operative temperature, max. 1 year Pail-safe temperature, max. 100 hours Maximum operating pressure, Application grade 4/5 Inner surface roughness Oxygen impermeability acc. to DIN 4726 Tensile stress at yield acc. to ISO 527 Tensile strength acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance outer diameter Tolerance wall thickness 70 °C 8 bar 90 °C 8 bar 94 bar 94 bar 95 d 96 d 97	Thermal admission resistance	0,0059 m ² K/W
Maximum operative temperature, max. 1 year 90 °C Fail-safe temperature, max. 100 hours 100 °C Maximum operating pressure, Application grade 4/5 Inner surface roughness 0,007 mm Oxygen impermeability acc. to DIN 4726 < 0,1 g/m³ d Tensile stress at yield acc. to ISO 527 17-20 N/mm² Tensile strength acc. to DIN 527 40 n/mm² Ultimate elongation acc. to DIN 527 320 % Young's modulus at 20°C acc. to DIN 53328 450 N/m² Tolerance inner diameter + 0,3 / - 0 mm Tolerance outer diameter + 0,3 / - 0 mm Tolerance wall thickness + 0,2 / - 0 mm	Thermal conductivity at 20°C acc. to DIN 52612	0,22 W/mK
Fail-safe temperature, max. 100 hours Maximum operating pressure, Application grade 4/5 Inner surface roughness Oxygen impermeability acc. to DIN 4726 Tensile stress at yield acc. to ISO 527 Tensile strength acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance outer diameter Tolerance wall thickness 100 °C 8 bar 8 bar 9,007 mm 40,07 mm 40 n/m² 40 n/m² 40 n/m² 450 N/m² 450 N/m² 70 mm 70 mm		70 °C
Maximum operating pressure, Application grade 4/5 Inner surface roughness Oxygen impermeability acc. to DIN 4726 Tensile stress at yield acc. to ISO 527 Tensile strength acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance outer diameter Tolerance wall thickness 8 bar 8 bar 8 bar 9,007 mm 40,007 mm 40 n/mm² 40 n/mm² 40 n/mm² 40 N/m² 450 N/m²	Maximum operative temperature, max. 1 year	90 °C
grade 4/5 Inner surface roughness Oxygen impermeability acc. to DIN 4726 Tensile stress at yield acc. to ISO 527 Tensile strength acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance outer diameter Tolerance wall thickness 0,007 mm 40 n/mm² 40 n/mm² 40 n/mm² 40 n/mm² 450 N/m² 450 N/m² 450 N/m² Tolerance outer diameter + 0,3 / - 0 mm Tolerance wall thickness + 0,2 / - 0 mm	Fail-safe temperature, max. 100 hours	100 °C
Oxygen impermeability acc. to DIN 4726 < 0,1 g/m³ d Tensile stress at yield acc. to ISO 527 17-20 N/mm² Tensile strength acc. to DIN 527 40 n/mm² Ultimate elongation acc. to DIN 527 320 % Young's modulus at 20°C acc. to DIN 53328 450 N/m² Tolerance inner diameter + 0,3 / - 0 mm Tolerance outer diameter + 0,3 / - 0 mm Tolerance wall thickness + 0,2 / - 0 mm		8 bar
Tensile stress at yield acc. to ISO 527 Tensile strength acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance outer diameter Tolerance wall thickness 17-20 N/mm² 40 n/mm² 420 % 450 N/m² + 0,3 / - 0 mm + 0,3 / - 0 mm + 0,2 / - 0 mm	Inner surface roughness	0,007 mm
Tensile strength acc. to DIN 527 Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance outer diameter Tolerance wall thickness 40 n/mm² 320 % 450 N/m² + 0,3 / - 0 mm + 0,3 / - 0 mm + 0,2 / - 0 mm	Oxygen impermeability acc. to DIN 4726	< 0,1 g/m³ d
Ultimate elongation acc. to DIN 527 Young's modulus at 20°C acc. to DIN 53328 Tolerance inner diameter Tolerance outer diameter Tolerance wall thickness 320 % 450 N/m² + 0,3 / - 0 mm + 0,3 / - 0 mm + 0,2 / - 0 mm	Tensile stress at yield acc. to ISO 527	17-20 N/mm ²
Young's modulus at 20°C acc. to DIN 53328 450 N/m² Tolerance inner diameter + 0,3 / - 0 mm Tolerance outer diameter + 0,3 / - 0 mm Tolerance wall thickness + 0,2 / - 0 mm	Tensile strength acc. to DIN 527	40 n/mm²
Tolerance inner diameter + 0,3 / - 0 mm Tolerance outer diameter + 0,3 / - 0 mm Tolerance wall thickness + 0,2 / - 0 mm	Ultimate elongation acc. to DIN 527	320 %
Tolerance outer diameter + 0,3 / - 0 mm Tolerance wall thickness + 0,2 / - 0 mm	Young's modulus at 20°C acc. to DIN 53328	450 N/m ²
Tolerance wall thickness + 0,2 / - 0 mm	Tolerance inner diameter	+ 0,3 / - 0 mm
	Tolerance outer diameter	+ 0,3 / - 0 mm
	Tolerance wall thickness	+ 0,2 / - 0 mm
Ovality max. 0,35 mm	Ovality	max. 0,35 mm





Pressure drop chart (T = 40 °C, wall roughness ϵ = 0.007 mm)



Pressure loss [Pa/m] (1mbar = 100 Pa)

Forms of delivery

Length in m	area m² in the RIVIERA System	Article number
250	ca. 21,19	WHR1213250

Storage

Material is indefinitely storable with dry and UV-protected storage.





Yield

Given lengths relate to the narrowest possible installation for the RIVIERA system. In practice the installation is based on the calculated length of the pipe and local conditions. For a low heating load installation is possible into every second or third groove to achieve an even heat emission.

Application

Flexible pipe for installation into the ArgillaTherm RIVIERA system panel. Install into the continuous groove in a meandering shape. Caution! Should incorrect handling cause a kink, pipe must be replaced! Press the pipe into the inversion in opposite installation direction at every turn. Subsequently coat with the ArgillaTherm clay final plaster.

Please refer to the RIVIERA system instruction manual for more precise processing directions.

System products

ArgillaTherm clay- dry construction board RIVIERA System

Dry construction board as mounting aid for flexible water-bearing pipe.

ArgillaTherm clay final plaster No. 1-2

Machinable clay plaster ready-mix acc. to DIN 18947.

ArgillaTherm clay finish plaster No. 2-2

Ready-mix for preparation of white thin layer coating according to DVL TM 06.

ArgillaTherm clay paint No. 3-2

Sprayable and brushable clay paint.

Thermostat AT-3R

Thermostat according to DIN EN 60730, protection class II, for finery or flush mounting.



Wagenstieg 9 37077 Göttingen

0551 389356-0 info@argillatherm.de

Working conditions for construction and application areas of our products are very various. In our technical data sheets, we can only provide basic processing guidelines. These comply with our current state of knowledge. Planners and processors are obligated to examine suitability and potential applications for the intended use. For application scenarios that are not expressly mentioned in our data sheets, planners and processors are obligated to refer to the ArgillaTherm® application technology. If the processor uses the product beyond the area of application in the instruction manual, without previous consultation of the ArgillaTherm® application technology, they are completely liable for the potential resulting damages. All herein contained descriptions, sketches, photographies, data, conditions, weights etc. can be changed without prior notice and do not represent contractual agreements of the of the products characteristics.

Possible property rights as well as existing laws and regulations are to be considered by the recipient of our product under their own responsibility. The reference of brand names of other companies does not act as a recommendation and does not rule out the use of other similar products, if they have not been classified for application with our products in the system. Our information solely describes characteristics and benefits of our product and does not provide a guarantee. A guarantee for specific properties or the suitability of the product for a certain purpose cannot be derived from our information. We only assume liability for incomplete or incorrect statements within our informational material in case of gross culpability (intent or severe negligence); possible demands of the product liability law remain unaffected.

