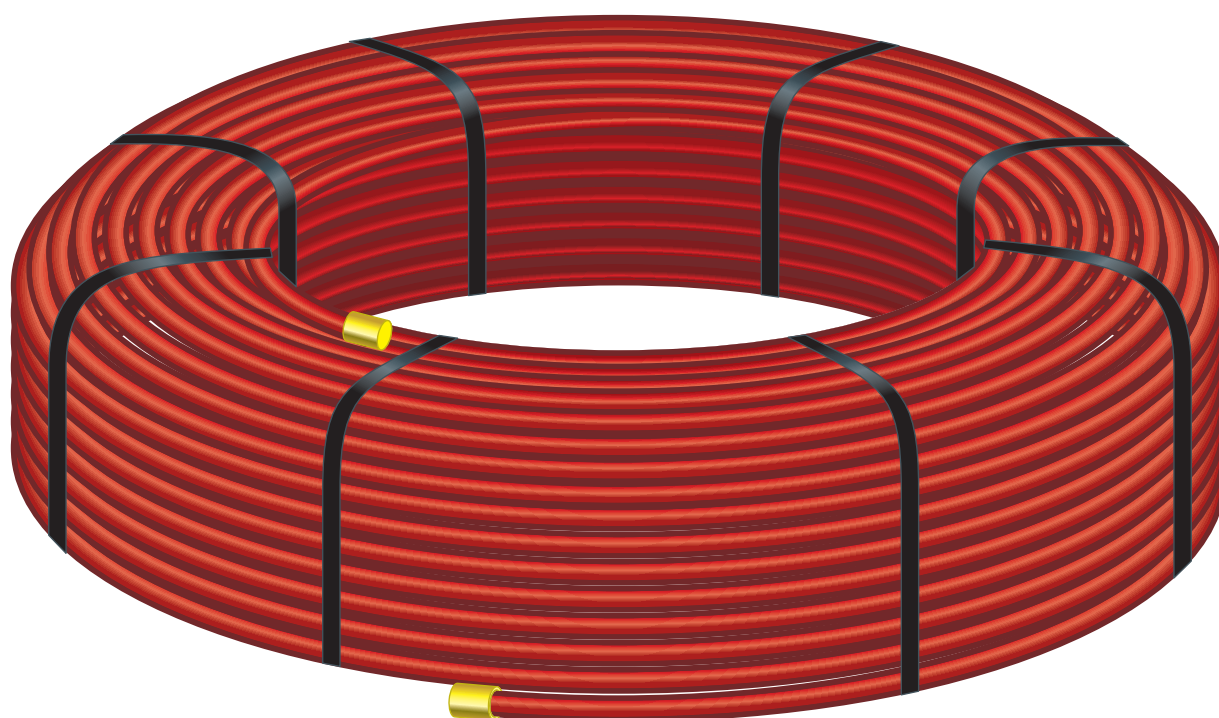


Instructions for Use

Pipe PB



For Fonterra radiant heating and cooling

Model
1405

viega

Table of contents

1	About these instructions for use	3
	1.1 Target groups	3
	1.2 About this translated version	3
2	Product information	4
	2.1 Standards and regulations	4
	2.2 Intended use	4
	2.3 Product description	5
	2.4 Technical data	6
	2.5 Accessories	7
3	Handling	9
	3.1 Transport and storage	9
	3.2 General mounting instructions	9
	3.3 Assembly	9
	3.4 Disposal	11

1 About these instructions for use

Trade mark rights exist for this document; for further information, go to viega.com/legal.

1.1 Target groups

The information in this instruction manual is directed at the following groups of people:

- Heating and plumbing experts and trained personnel

Individuals without the abovementioned training or qualification are not permitted to mount, install and, if required, maintain this product. This restriction does not extend to possible operating instructions.

1.2 About this translated version

This instruction for use contains important information about the choice of product or system, assembly and commissioning as well as intended use and, if required, maintenance measures. The information about the products, their properties and application technology are based on the current standards in Europe (e.g. EN) and/or in Germany (e.g. DIN/DVGW).

Some passages in the text may refer to technical codes in Europe/Germany. These should serve as recommendations in the absence of corresponding national regulations. The relevant national laws, standards, regulations, directives and other technical provisions take priority over the German/European directives specified in this manual: The information herein is not binding for other countries and regions; as said above, they should be understood as a recommendation.

2 Product information

2.1 Standards and regulations

The following standards and regulations apply to Germany / Europe and are provided as a support feature.

Regulations from section: Intended use

Scope / Notice	Regulations applicable in Germany
Oxygen seal of heating pipes	DIN 4726
Plastic piping systems for hot and cold water installation	DIN EN ISO 15876-1

2.2 Intended use

For surface temperature control in floor, wall and ceiling constructions as well as low-temperature radiator connections with application class 4.

The application class for PB pipes describes a practical temperature profile for a complete lifetime of a pipe (50 years), see also ↗ *'Regulations from section: Intended use'* on page 4.

Calculation temperature	20 °C	2.5 years
	40 °C	20 years
	60 °C	25 years
Short term maximum temperature	70 °C	2.5 years
Interference temperature	100 °C	100 hours

2.3 Product description

Viega PB pipes with smaller wall thicknesses are manufactured as 3-layer pipes and larger wall thicknesses as 5-layer pipes.

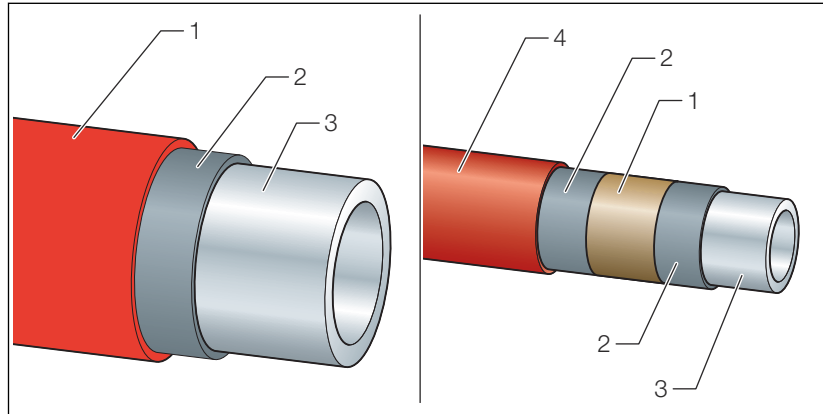


Fig. 1: PB pipe pipe structure

- 1 Seal coat
- 2 Adhesive
- 3 PB-R
- 4 PE

Properties Viega PB pipes:

- oxygen-tight in accordance with DIN 4726
- mounting temperature up to -5 °C
- limited length expansion
- suitable for press and clamp connectors
- suitable for all matching Fonterra systems in floors, walls and ceilings
- easy to install with tight bending radii and low installation temperatures
- Highest flexibility due to very low modulus of elasticity (350 MPa)

Fonterra systems	Viega PB pipes				
	12 x 1.3 mm	15 x 1.5 mm	17 x 2 mm	20 x 2 mm	25 x 2.3 mm
Base Flat	X				
Base 12/15	X	X			
Base 15/17		X	X		
Stapler		X	X	X	
Reno	X				
Side / Side 12 Clip	X				
Top 12	X				
Special systems				X	X

2.4 Technical data

System pipes		PB 12	PB 15	PB 17	PB 20	PB 25
Outer diameter x wall thickness	[mm]	12 x 1.3	15 x 1.5	17 x 2.0	20 x 2.0	25 x 2.3
Minimum bending radius		5 x d _a				
Pipe colour		Red				
Operating condition acc. to ISO 15876-1	Class/ [MPa]	4 / 1.0 5 / 0.8	4 / 0.8 5 / 0.8	4 / 0.6	4 / 0.6	4 / 0.6
Maximum operating temperature	[°C]	95		70		
Mounting temperature	[°C]	≥ -5				
Water volume	[l/m]	0.07	0.11	0.13	0.20	0.32
Heat conductivity λ	[W/(m·K)]	0.22				
Linear coefficient of length expansion	[K ⁻¹]	1.3 x 10 ⁻⁴				
Weight	[g/m]	50	67	99	120	160
Layers		3	3	5	5	5

2.5 Accessories

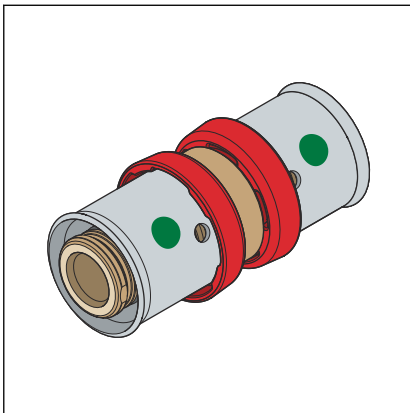
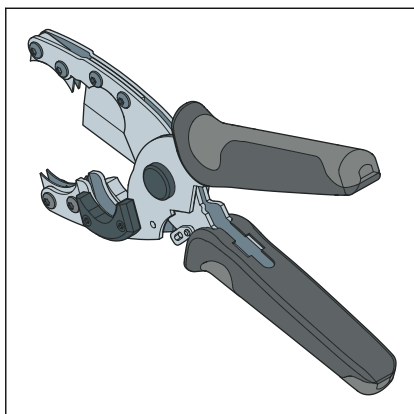
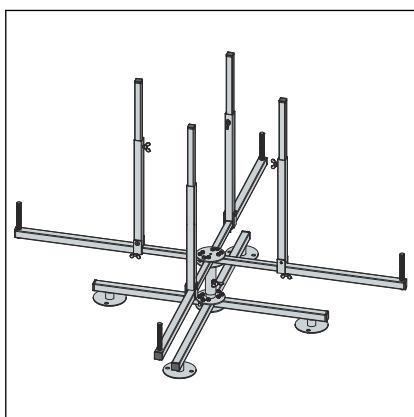


Fig. 2: Example of a press connector

Name	Use	Dimension
Adapter with SC-Contur (model 1213.5)	for Fonterra radiant heating and cooling, Fonterra pipe onto external thread	12 / R $\frac{1}{2}$ / 15 / R $\frac{1}{2}$ / 20 / R $\frac{3}{4}$ / 25 / R $\frac{3}{4}$
Plug-in piece with SC-Contur (model 1213)	for Fonterra radiant heating and cooling, cross over from Fonterra PB pipe (d1) onto Sanpress, Sanpress Inox, Profipress	12 / 15 15 / 15
Coupling with SC-Contur (model 1223)	for Fonterra radiant heating and cooling, connection of Fonterra pipes	12 15 16 17 20 25
Connection screw fitting with SC-Contur (model 1236)	for Fonterra radiant heating and cooling, Fonterra pipe, manifold DN25	12 15 17 20
Elbow 90° with SC-Contur (model 1214.3)	for Fonterra radiant heating and cooling, Fonterra PB pipe	15
connection screw fitting (model 1037)	For Fonterra radiant heating and cooling, manifold DN 25 euro cone, clamping connection	12 15 16 17 20
Clamping ring screw fitting (model 1021)	for Fonterra radiant heating and cooling, Fonterra PB pipe R-thread, clamp connection	R $\frac{3}{4}$
Coupling (model 1030.5)	for Fonterra radiant heating and cooling, connection of Fonterra pipes Clamping connection	12 15 17 20 25
adapter (model 1021.5)	for Fonterra surface tempering, screw connection with Euro cone G-thread, compression fitting	$\frac{1}{2}$ $\frac{3}{4}$



Name	Use
Pipe shear (model 5341)	for cutting Viega plastic pipe to length with protective pipe cutter



Name	Use
Pipe reel (model 1452.2)	for Fonterra radiant heating and cooling, pipe coils holder Folding, dismountable, four-armed, with stabilising spring, carrying capacity max. 100 kg



Name	Use
press jaw PT2 for plastic piping systems (model 2799.7)	d12
press jaw PT2 for plastic piping systems (model 2299.7)	d15, 16/17, 20, 25



Name	Use
Picco press jaw for plastic piping systems (model 2484.7)	d12, 15, 16/17, 20, 25

3 Handling

3.1 Transport and storage

Transport

Observe the following when transporting pipes:

- Do not pull the pipes over the loading edge. The surface could be damaged.
- Secure pipes during transportation.

Storage

Observe the following when storing pipes:

- Store components in a clean and dry place.
- Do not store the components directly on the floor.

3.2 General mounting instructions



NOTICE!

Damaged parts must be replaced. Do not attempt to repair them.

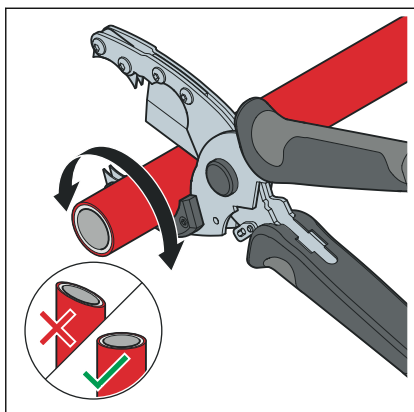
When using Fonterra pipes, observe the following assembly instructions:

- Only use original components from the Fonterra system.
- Use the pressing machines or hand pressing tools recommended in the catalogue.
- Use the Viega system press jaws listed in the catalogue to press the press connectors with the Fonterra pipes.
- Check all parts before use.

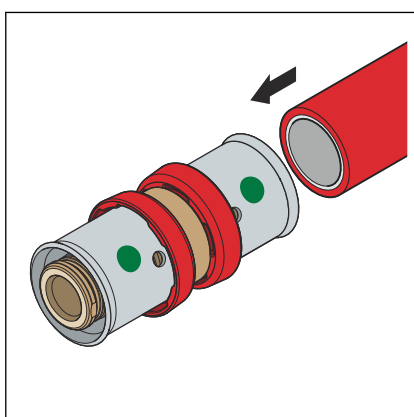
3.3 Assembly



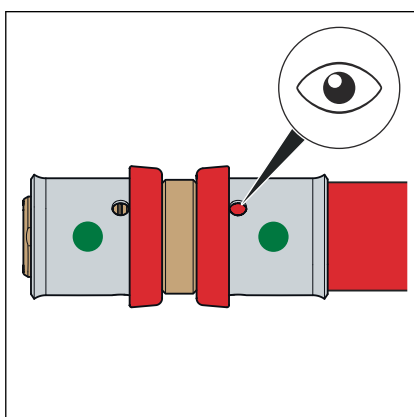
The illustrations show examples of how a press connector is pressed with a Fonterra pipe. The presentation of the press connector and that of the pipe may therefore differ from your product.



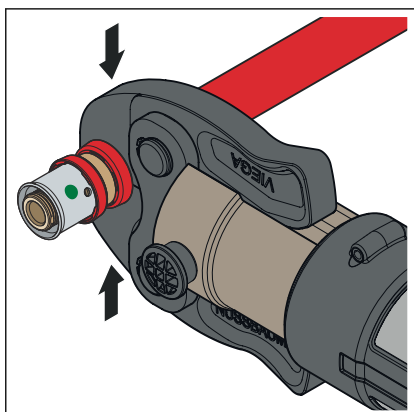
- ▶ Cut the pipe to length at a right angle as accurately as possible using pipe shears (model 5341) to ensure a complete and even pipe insertion depth.



- ▶ Push the pipe into the press connector until the pipe end is visible in the inspection window.



- ▶ Check the insertion depth in the inspection window.



- ▶ Open the press jaw and place it at a right-angle onto the press connector.
- ▶ Carry out the pressing process.
 - Connection is pressed.

Leakage test

The installer must perform a leakage test before commissioning.
Carry out this test on a system that is finished but not covered yet.

3.4 Disposal

Separate the product and packaging materials (e. g. paper, metal, plastic or non-ferrous metals) and dispose of in accordance with valid national legal requirements.



Viega GmbH & Co. KG
service-technik@viega.de
viega.com

INT • 2023-08 • VPN230129

