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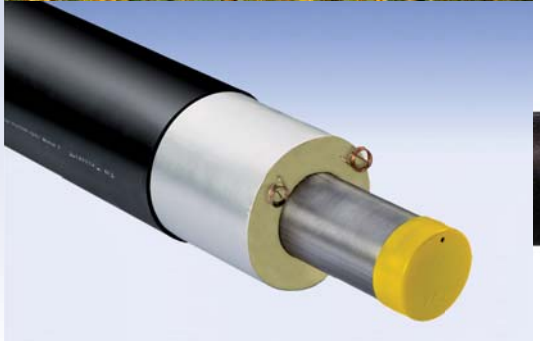
Transporting energy.

ISOJOINT X



www.isoplus-pipes.com

isojoint X

Connection technology jacket pipe

Description

The cross-linked, self-sealing **isojoint X** – shrinkable coupler is a system consisting of an undivided PEHD pipe with heat-shrinking characteristics in addition to two polyurethane welding plugs. After extrusion, the joint body will be cross-linked. The radiation cross-linking gives technical plastics the mechanical, thermal, and chemical qualities of high-performance plastics.

Stretched while warm during production, the socket is shrunk back to its original diameter using a soft gas flame. This shape memory is also called the Memory Effect. Before the shrinking process, a sealing strip respectively an adhesive tape of butyl rubber and melt adhesive is inserted between the casing pipe and the joint, so that a very high ring key strength is achieved due to the shrinking and the seal, which means that no additional collars are required.

The cross-linked shrinking joint will be subjected to an air pressure test of 0,2 bar before foaming and will be tested using an appropriate indicator liquid. After foaming, the foam filling and the ventilation openings will be sealed with polyethylene stoppers. In order to enable welding of the polyethylene plugs, the area of the welding plugs will not be cross-linked and therefore will be weldable.

Area of application:	Suitable for all pipe-networks with high operating- and soil conditions, like ground- and pressing water. According to EN 489:2009 (D)
Diameter :	from D_a = 90 mm up to maximum D_a = 560 mm
Delivery length :	Standard = 700 mm

Due to the examination according to EN 489:2009 (D) the following characteristics of **isojoint X** - connection will be also guaranteed:

⇒ The sleeve connection successfully passes soil stress tests as well as water impermeability tests.

⇒ The PUR-foam meets the requirements in terms of cell size, compression strength, foam density, water absorption as well as the quantity of closed cells.

⇒ The modification of the operating temperature during the year will lead to axial loads in the pipelines.
During the total life-time of district heating pipelines the joint connections should stand such axial loads during the operation. The life-time will be expected with at least 30 years and 100 total changes of load will be considered.

FFI FERNWÄRME FORSCHUNGSINSTITUT

TEST CERTIFICATE

489 1509 144A

Tests according to EN 489:2009
for
non-welded joint for district heating pre-insulated pipeline systems type
"Isojoint X®"
by order of

isoplus Fernwärmetechnik GmbH

Test sample No. 4197:
Joint Type "Isojoint X®"
on 1x DN 150/250

Test report 1287E5191
The following tests have been completed in accordance with the European Standard EN 489:2009 at the FFI for one non-welded joint in August/September 2015:
Soil stress test with 1000 instead of 100 cycles and water impermeability test.
The joint has passed the tests successfully.

Hemmingen, 2015-09-03

Thomas Grage
Managing Director

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