

PE-X Standards for Pressure Pipe Applications

CEN European and ISO International

EN ISO 15875 Plastics piping systems for hot and cold water installations – Crosslinked polyethylene (PE-X)

- Part 1 General
- Part 2 Pipes
- Part 3 Fittings
- Part 5 Fitness for purpose
- CEN ISO TS Part 7 Guidance for assessment of conformity

Status – published (2002)

ISO 14531 Plastics pipes and fitting – Crosslinked polyethylene (PE-X) pipe systems for the conveyance of gaseous fuels – Metric series – Specifications

- Part 1 Pipes (Published 2003)
- Part 2 Fittings for heat fusions jointing (Published 2004)
- Part 3 Mechanical fittings (DIS draft)
- Part 4 Guidance for design and installation (DIS draft)

Status – Parts 1 & 2 published, Part 3 & 4 prepared for FDIS vote, probable publication end 2005.

National Standards

UK - BSi

BS 7291-1 Thermoplastics pipes and associated fittings for hot and cold water for domestic purposes and heating installations in buildings. General requirements

BS 7291-3 Thermoplastics pipes and associated fittings for hot and cold water for domestic purposes and heating installations in buildings. Specification for cross-linked polyethylene (PE-X) pipes and associated fittings

Status – Published (2001)

German – DIN

DIN 16892 Pipes made from crosslinked PE (PEX) – General requirements, testing

DIN 16893 Pipes made from crosslinked PE (PEX) – Dimensions

Status – published (2000)

DIN 16895 Crosslinked medium density polyethylene (PE-MDX) pipes - Dimensions

Status – Published (1996)

DIN 4726 Warm water floor heating systems and radiator pipe connecting - Piping of plastic materials

Status – published (2000)

USA – ASTM

F876-04 Standard Specification for Crosslinked Polyethylene (PEX) Tubing

F877-05 Standard Specification for Crosslinked Polyethylene (PEX) Hot and Cold water Distribution Systems

F1281-03 Standard Specification for Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Pressure Pipe

F1282-03 Standard Specification for Polyethylene/Aluminum/Polyethylene (PE-AL-PE) Composite Pressure Pipe

Status – All published

ISO Product Standards with PE-X Option

ISO/DIS 17484 Plastics piping systems. Multi-layered pipe systems for indoor gas installations with a maximum operating pressure up to and including 5 bar

- Part 1~ Specifications for systems
- Part 2 – Code of practice

Status – Part 1 – Draft, Part 2 not commenced. Publication ~ 2006.

ISO/DIS18225 Multilayer piping systems for outdoor gas installations – Specifications for systems

Status – Draft, publication ~ 2006

ISO/DIS 21004 Plastics piping systems – Multilayer pipes and their joints, based on thermoplastics, for water supply (Outdoors)

Status – Draft, publication 2006

ISO/CD 21003 Multilayer piping systems for hot and cold water installations inside buildings

- Part 1 - General
- Part 2 - Pipes.
- Part 3 - Fittings.
- Part 5 - Fitness for purpose of the system.

Status – Committee draft, publication 2007

ISO DTS 18226 Reinforced plastics piping systems for gaseous fuels

Status – ready for single stage vote.

CEN/TC 107 WI 107019 District heating pipes – Pre-insulated flexible pipe systems; requirements and test methods

- Part 1: General requirements and test methods
- Part 2 Plastics medium pipes, bonded
- Part 3 Plastics medium pipes, non bonded
- Part 4 Metallic medium pipes, bonded
- Part 5 Metallic medium pipes, non bonded

Status – Committee working document, publication ~ 2007

Specific Test methods and specifications

ISO 10147 Plastics pipes and fitting made of crosslinked polyethylene (PE-X) – Estimation of the degree of crosslinking by determination of the gel content

EN 579 Plastics piping systems - Crosslinked polyethylene Determination of degree of crosslinking by solvent extraction

ISO 10147 Crosslinked polyethylene (PE-X) pipes – Effect of time and temperature on the expected strength

ISO 10508 Plastics piping systems for hot and cold water installation – Guidance for classification and design