



# SLOVENSKI STANDARD

## SIST EN 806-2:2005

01-julij-2005

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### Specifikacije za napeljave za pitno vodo v stavbah - 2. del: Načrtovanje

Specification for installations inside buildings conveying water for human consumption - Part 2: Design

Technische Regeln für Trinkwasser-Installationen - Teil 2: Planung

Spécifications techniques relatives aux installations d'eau destinée à la consommation humaine à l'intérieur des bâtiments - Partie 2: Conception

Ta slovenski standard je istoveten z: **EN 806-2:2005**

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EUROPEAN STANDARD

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## Specification for installations inside buildings conveying water for human consumption - Part 2: Design

Spécifications techniques relatives aux installations pour  
l'eau destinée à la consommation humaine à l'intérieur des  
bâtiments - Partie 2: Conception

Technische Regeln für Trinkwasser-Installationen - Teil 2:  
Planung

This European Standard was approved by CEN on 3 February 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN 806-2:2005) has been prepared by Technical Committee CEN/TC 164 "Water supply", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2005, and conflicting national standards shall be withdrawn at the latest by September 2005.

This document has been prepared under the direction of CEN/TC 164 and is intended for the use of engineers, architects, surveyors, contractors, installers, water suppliers, consumers and regulatory inspections.

This standard has been written in the form of a practice specification. It is the second part of a European Standard consisting of five parts as follows:

— *Part 1: General*

— *Part 2: Design*

— *Part 3: Pipe sizing*

— *Part 4: Installation*

— *Part 5: Operation and maintenance*

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NOTE : Products intended for use in water supply systems must comply when existing, with national regulations and testing arrangements that ensure fitness for contact with drinking water. The Member states relevant regulators and the EC Commission agreed on the principle of a future unique European Acceptance Scheme (EAS), which would provide a common testing and approval arrangement at European level. If and when the EAS is adopted, European Product Standards will be amended by the addition of an Annex Z/EAS under Mandate M136 which will contain formal references to the testing, certification and product marking requirements of the EAS. Until EAS comes into force, the current national regulations remain applicable.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

**EN 806-2:2005 (E)****1 Scope**

This document gives recommendations, and specifies requirements, on the design of potable water installations within buildings and for pipework outside buildings but within the premises (see EN 806-1) and applies to new installations, alterations and repairs.

**2 Normative references**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references the latest edition of the referenced document (including any amendments) applies.

EN 26, *Gas-fired instantaneous water heaters for sanitary uses production, fitted with atmospheric burners (Including Corrigendum 1998).*

EN 89, *Gas-fired storage water heaters for the production of domestic hot water.*

EN 545, *Ductile iron, pipes, fittings, accessories and their joints for water pipelines — Requirements and test methods.*

EN 625, *Gas-fired central heating boilers — Specific requirements for the domestic hot water operation of combination boilers of nominal heat input not exceeding 70 kW .*

EN 805, *Water supply — Requirements for external systems and components outside buildings.*

EN 806-1:2000, *Specifications for installations inside buildings conveying water for human consumption — Part 1: General.*

prEN 806-3, *Specifications for installations inside buildings conveying water for human consumption — Part 3: Pipe sizing.*

EN 973, *Chemicals used for treatment of water intended for human consumption – Sodium chloride for regeneration of ion exchangers.*

EN 1057, *Copper and copper alloys – Seamless, round copper tubes for water and gas in sanitary and heating applications.*

EN 1254-1, *Copper and copper alloys – Plumbing fittings – Part 1: Fittings with ends for capillary soldering or capillary brazing to copper tubes.*

EN 1254-2, *Copper and copper alloys – Plumbing fittings – Part 2: Fittings with compression ends for use with copper tubes.*

EN 1254-3, *Copper and copper alloys – Plumbing fittings – Part 3: Fittings with compression ends for use with plastics pipes.*

EN 1254-4, *Copper and copper alloys - Plumbing fittings - Part 4: Fittings combining other end connections with capillary or compression ends*

EN 1254-5, *Copper and copper alloys – Plumbing fittings – Part 5: Fittings with short ends for capillary brazing to copper tubes.*

prEN 1254-7, *Copper and copper alloys - Plumbing fittings - Part 7: Fittings with press ends for metallic tubes*

EN 1452-1, *Plastics piping systems for water supply — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: General.*

EN 1452-2, *Plastics piping systems for water supply — Unplasticized poly(vinyl chloride) (PVC-U) — Part 2: Pipes.*

EN 1452-3, *Plastics piping systems for water supply — Unplasticized poly(vinyl chloride) (PVC-U) — Part 3 : Fittings.*

EN 1452-5, *Plastics piping systems for water supply — Unplasticized poly(vinyl chloride) (PVC-U) — Part 5: Fitness for purpose of the system.*

ENV 1452-7, *Plastics piping systems for water supply — Unplasticized poly(vinyl chloride) (PVC-U) — Part 7: Guidance for the assessment of conformity.*

EN 1487, *Building valves – Hydraulic safety groups – Tests and requirements.*

EN 1488, *Building valves – Expansion group – Tests and requirements.*

EN 1489, *Building valves – Pressure safety valves – Tests and requirements.*

EN 1490, *Building valves - Combined temperature and pressure relief valves - Tests and requirements.*

EN 1491, *Building valves – Expansion valve – Tests and requirements.*

EN 1717, *Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow.*

EN 10226-1, *Pipe threads where pressure tight joints are made on the threads - Part 1: Taper external threads and parallel internal threads - Dimensions, tolerances and designation.*

EN 10240, *Internal and/or external protective coatings for steel tubes – Specification for hot dip galvanized coatings applied in automatic plants.*

EN 10242, *Threaded pipe fitting in malleable cast iron.*

EN 10255, *Non-Alloy steel tubes suitable for welding and threading – Technical delivery conditions.*

EN 10284, *Malleable cast iron fittings with compression ends for polyethylene (PE) piping systems.*

EN 12201-1, *Plastics piping systems for water supply – Polyethylene (PE) – Part 1: General*

EN 12201-2, *Plastics piping systems for water supply – Polyethylene (PE) – Part 2: Pipes*

EN 12201-3, *Plastics piping systems for water supply – Polyethylene (PE) – Part 3: Fittings.*

EN 12201-5, *Plastics piping systems for water supply – Polyethylene (PE) – Part 5: Fitness for purpose of the system.*

CEN/TS 12201-7, *Plastics piping systems for water supply – Polyethylene (PE) – Part 7: Guidance for the assessment of conformity.*

EN 12502-1, *Protection of metallic materials against corrosion – Guidance on the assessment of corrosion likelihood in water distribution and storage systems – Part 1: General.*

EN 12502-2, *Protection of metallic materials against corrosion – Guidance on the assessment of corrosion likelihood in water distribution and storage systems – Part 2: Influencing factors for copper and copper alloys.*

EN 12502-3, *Protection of metallic materials against corrosion – Guidance on the assessment of corrosion likelihood in water distribution and storage systems – Part 3: Influencing factors for hot dip galvanised ferrous materials.*

prEN 12502-4, *Protection of metallic materials against corrosion – Guidance on the assessment of corrosion likelihood in water distribution and storage conveying systems – Part 4: Influencing factors for stainless steels.*

EN 12502-5, *Protection of metallic materials against corrosion – Guidance on the assessment of corrosion likelihood in water distribution and storage systems – Part 5: Influencing factors for cast iron, unalloyed and low alloyed steels.*

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EN 12842, *Ductile iron fittings for PVC-U or PE piping systems – Requirements and test methods.*

EN 13443-1, *Water conditioning equipment inside buildings - Mechanical filters - Part 1: Particle rating 80 µm to 150 µm - Requirements for performances, safety and testing.*

EN 14095, *Water conditioning equipment inside buildings - Electrolytic treatment systems with aluminium anodes - Requirements for performance, safety and testing.*

EN 14525, *Ductile iron wide tolerance couplings and flange adaptors for use with pipes of different materials: ductile iron, Grey iron, Steel, PVC-U PE, Fibre – cement.*

prEN 14743, *Water equipment inside buildings - Softeners - Requirements for performance, safety and testing.*

EN 29453, *Soft solder alloys; chemical compositions and forms (ISO 9453:1990).*

EN 60335-2-21, *Household and similar electrical appliances - Safety - Part 2-21: Particular requirements for storage water heaters (IEC 60335-2-21:2002, modified).*

EN 60335-2-35, *Household and similar electrical appliances - Safety - Part 2-35: Particular requirements for instantaneous water heaters (IEC 60335-2-35:2002).*

EN 60534-8-4, *Industrial-process control valves — Part 8 : Noise considerations — Section 4: Prediction of noise generated by hydrodynamic flow (IEC 60534-8-4/1994).*

EN 60730-1, *Automatic electrical controls for household and similar use — Part 1: General requirements (IEC 60730-1:1999, modified).*

EN 60730-2-8, *Automatic electrical controls for household and similar use — Part 2-8: Particular requirements for electrically operated water valves, including mechanical requirements (IEC 60730-2-8:2000, modified).*

EN ISO 3822-1, *Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 1: Method of measurement (ISO 3822-1:1999).*

EN ISO 3822-2, *Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 2: Mounting and operating conditions for draw-off taps and mixing valves (ISO 3822-2:1995).*

EN ISO 3822-3, *Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 3: Mounting and operating conditions for in-line valves and appliances (ISO 3822-3:1997).*

EN ISO 3822-4, *Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 4: Mounting and operating conditions for special appliances (ISO 3822-4:1997).*

EN ISO 6509, *Corrosion of metals and alloys - Determination of dezincification resistance of brass (ISO 6509:1981).*

EN ISO 15874-1, *Plastics piping systems for hot and cold water installations – Polypropylene (PP) – Part 1: General (ISO 15874-1:2003).*

EN ISO 15874-2, *Plastics piping systems for hot and cold water installations – Polypropylene (PP) – Part 2: Pipes (ISO 15874-2:2003).*

EN ISO 15874-3, *Plastics piping systems for hot and cold water installations – Polypropylene (PP) – Part 3: Fittings (ISO 15874-3:2003).*

EN ISO 15874-5, *Plastics piping systems for hot and cold water installations – Polypropylene (PP) – Part 5: Fitness for purpose of the system (ISO 15874-5:2003).*

EN ISO/TS 15874-7, *Plastics piping systems for hot and cold water installations– Polypropylene (PP) – Part 7: Guidance for the assessment of conformity (ISO/TS 15874-7:2003).*



EN ISO 15875-1, *Plastics piping systems for hot and cold water installations – Crosslinked polyethylene (PE-X) – Part 1: General (ISO 15875-1:2003).*

EN ISO 15875-3, *Plastics piping systems for hot and cold water installations – Crosslinked polyethylene (PE-X) – Part 3: Fittings (ISO 15875-3:2003).*

EN ISO 15875-5, *Plastics piping systems for hot and cold water installations – Crosslinked polyethylene (PE-X) – Part 5: Fitness for purpose of the system (ISO 15875-5:2003).*

EN ISO/TS 15875-7, *Plastics piping systems for hot and cold water installations – Crosslinked polyethylene (PE-X) – Part 7: Guidance for the assessment of conformity (ISO/TS 15875-7:2003)*

EN ISO 15876-1, *Plastics piping systems for hot and cold water – Polybutylene (PB) – Part 1: General (ISO 15876-1:2003).*

EN ISO 15876-2, *Plastics piping systems for hot and cold water installations – Polybutylene (PB) – Part 2: Pipes (ISO 15876-2:2003).*

EN ISO 15876-3, *Plastics piping systems for hot and cold water installations – Polybutylene (PB) – Part 3: Fittings (ISO 15876-3:2003).*

EN ISO 15876-5, *Plastics piping systems for hot and cold water installations – Polybutylene (PB) – Part 5: Fitness for purpose of the system (ISO 15876-5:2003).*

EN ISO/TS 15876-7, *Plastics piping systems for hot and cold water installations – Polybutylene (PB) – Part 7: Guidance for the assessment of conformity (ISO/TS 15876-7:2003).*

EN ISO 15877-1, *Plastics piping systems for hot and cold water installations – Chlorinated poly(vinyl chloride) (PVC-C) – Part 1: General (ISO 15877-1:2003).*

EN ISO 15877-2, *Plastics piping systems for hot and cold water installations – Chlorinated poly(vinyl chloride) (PVC-C) – Part 2: Pipes (ISO 15877-2:2003).*

EN ISO 15877-3, *Plastics piping systems for hot and cold water installations – Chlorinated poly(vinyl chloride) (PVC-C) – Part 3: Fittings (ISO 15877-3:2003).*

EN ISO 15877-5, *Plastics piping systems for hot and cold water installations – Chlorinated poly(vinyl chloride) (PVC-C) – Part 5: Fitness for purpose of the system (ISO 15877-5:2003).*

EN ISO/TS 15877-7, *Plastics piping systems for hot and cold water installations – Chlorinated poly(vinyl chloride) (PVC-C) – Part 7: Guidance for the assessment of conformity (ISO/TS 15877-7:2003).*

ISO 15875-2, *Plastics piping systems for hot and cold water installations – Crosslinked polyethylene (PE-X) – Part 2: Pipes.*

IEC 60064-5-54, *Electrical installations of buildings - Part 5-54: Selection and erection of electrical equipment; Earthing arrangements, protective conductors and protective bonding conductors*

### 3 General requirements

#### 3.1 Water supply

This document applies irrespective of the water being supplied by a statutory water supplier or from a private supply. Attention is drawn to national or local regulations and requirements.

#### 3.2 Basic concepts

##### 3.2.1 General

For design and construction of a potable water installation two types of installation are considered:

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- installation type A: Closed potable water installations, see EN 806-1:2000, 5. and Annex A, Figure 2.
- installation type B: Vented potable water installations, see EN 806-1:2000, 5.11 and Annex A, Figure 3.

Installation types A and B may be combined.

The potable water installation shall be designed to:

- a) avoid waste, undue consumption, misuse and water contamination;
- b) avoid excessive velocity, low flow rates and stagnant areas;
- c) enable water supply to all individual water outlets, taking into consideration pressure, flow rate, water temperature and use of building;
- d) avoid the trapping of air during filling and the formation of air locks during operation of the installation;
- e) not cause danger or inconvenience to persons and domestic animals nor endanger buildings or their contents;
- f) avoid damage (e.g. scaling, corrosion and degradation) and to prevent the water quality being affected by local environment;
- g) facilitate access and maintenance operations of appliances;
- h) avoid cross-connections and
- i) minimise the generation of noise.

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**3.2.2 Water and energy conservation**

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The designer shall consider the water usage and energy demands of an installation and seek to minimise these.

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**3.3 Underground pipework**

All underground pipework covered by this standard shall conform with the requirements given in EN 805.

**3.4 Materials, components and appliances****3.4.1 General**

All materials, components and appliances used in the construction of potable water systems shall comply with appropriate CEN product standards or European Technical Approval guidelines if applicable. Where these are not available national standards or local regulations should be used.

The design and selection of materials shall take into consideration the service conditions and water quality.

Information and criteria about the reasonable choice of metal pipe material taking into account corrosion likelihood is given in EN 12502-1 to -5.

**3.4.2 Pressure and temperature**

To ensure adequate strength, all components of the system shall be designed to meet the test pressure requirements of the local and national laws and regulations. The test pressure shall be at least 1,5 times the allowable maximum operating pressure (PMA).

All pipes and joints of a potable water installation shall be designed for a service life of 50 years taking into account appropriate maintenance and specific operating conditions.

Unless otherwise specified in European Standards, the materials, components and appliances for hot drinking water installations shall be capable of resisting water temperatures up to 95° under fault conditions.

The minimum operating conditions for calculation purposes for pipes and pipe fittings shall be as given in Table 1 and Table 2.

**Table 1 — Allowable maximum operating pressure classes**

Allowable maximum operating pressure (PMA) class	Pressure kPa
PMA 1,0	1000
PMA 0,6	600
PMA 0,25	250

**Table 2 — Classification of service conditions for plastic pipe systems**

Application class	Design temperature, $T_D$ °C	Time at $T_D$ years	$T_{max}$ °C	Time at $T_{max}$ years	$T_{mal}$ for fault condition °C	Time at $T_{mal}$ for fault condition h	Typical field of application
1	60	49	80	1	95	100	Hot water supply (60 °C)
2	70	49	80	1	95	100	Hot water supply (70 °C)

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All systems which satisfy the conditions specified in Table 2 shall also be suitable for the conveyance of cold water for a period of 50 years at a temperature of 20 °C and a design pressure of 10 bar.

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If not required in national or local regulations the sum of operation pressure and surge pressure should not exceed test pressure of the installation.

Surge pressures resulting from the operation of valves in fire extinguishing and fire protection systems which are operated no more than once a month for test purposes and otherwise only in the event of a fire are excluded from this requirement.

### 3.5 Water flow rates

Design flow rates from outlets are given in prEN 806-3.

### 3.6 Operating Temperature

30 s after fully opening a draw-off fitting, the water temperature should not exceed 25 °C for cold water draw off points and should not be less than 60 °C for central hot water systems unless otherwise specified by local or national regulations.

Hot water systems should have the facility to enable the temperature at the extremities of the system to be raised to 70 °C for disinfection purposes (see 9.1).

## 4 Private water supplies

Where a private water supply is to be used in addition to water supplied by a statutory water supplier, the supplier's approval to the proposals shall be obtained before work commences. There shall be no cross connection of systems carrying water from different water suppliers or of different sources from one supplier. See EN 1717.

**EN 806-2:2005 (E)****5 Acceptable materials****5.1 Choice of material**

The following factors shall be taken into account in selecting materials used in a water system:

- a) effect on water quality;
- b) vibrations, stresses or settlement;
- c) internal water pressure;
- d) internal and external temperatures;
- e) internal and external corrosion;
- f) compatibility of different materials;
- g) ageing, fatigue, durability and other mechanical factors;
- h) permeation.

Lead pipes and -fittings shall not be used.

A non-exhaustive list of acceptable materials is given in Annex A.

NOTE In the framework of the EU-Mandate M136 under the Construction Products Directive (CPD) and the Drinking Water Directive (DWD) a system of European Standards (EN) and other regulation is in preparation to establish a European Acceptance Scheme (EAS) for testing and certification of products in contact with water intended for human consumption.

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**5.2 Pipe joints**

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All joints used for potable water shall conform to the relevant standards.

Pipe joints shall be permanently water-tight under the alternating stresses occurring in operation.

Basically two different designs will be distinguished: pipe joints which can take up axial forces and such which need a fixation to prevent disconnection. For the latter, suitable fixing points shall be provided to absorb hydraulic forces acting on the joints.

**5.3 Materials used in pipe joint assemblies**

Only solders free from lead, antimony and cadmium shall be specified, unless permitted by national or local regulations.

Other materials and systems can be used if they comply with the general requirements given in 3.4.1.

Table 3 — Material for pipes and fittings, metals

Available jointing methods for metallic piping systems	Material for pipes			
	Ductile iron	Stainless steel	Hot dip galvanized steel (HDGS)	Copper
	Material for fittings			
	Ductile iron	Stainless steel and brass	Hot dip galvanized malleable cast iron	Copper and copper alloys
Capillary solder fitting	-	-	-	X
Brazing	-	X <sup>d</sup>	X <sup>d</sup>	X <sup>c</sup>
Welding	-	X <sup>d</sup>	-	X <sup>c</sup>
Threaded joint <sup>a</sup>	-	X <sup>b</sup>	X	X <sup>c</sup>
Compression fittings	-	X	X	X
Crimped fittings	-	X	-	X
Sockets with elastomeric sealing ring and spigot ends	X	-	-	-
Push fit fittings	X	X	X	X
Flanges	X	X	X	X
Demountable unions	X	X	X	X
	<b>Further commentaries</b>			
	Pipes and fittings according to EN 545. Protective coatings and linings may be required. Sockets with spigot ends according to EN 545.	Pipes and fittings. Small copper connections to large stainless steel tanks should be avoided. Fluxes containing chlorides, borides and other substances that can cause pitting of stainless steel shall not be used - phosphoric acid based fluxes shall be used.	Pipes in HDGS according to EN 10255 only medium or heavy series with hot dip galvanized coating according to EN 10240 only coating quality A.1. Hot dip galvanized malleable cast iron fittings according to EN 10242. Galvanized malleable cast iron fittings are normally used for jointing. Site formed bends shall not be used to avoid damage to galvanizing, hot dip galvanized bends according to EN 10242 shall be used instead	Pipes, fittings, pre-fabricated assemblies. Solders shall be tin copper alloy (No 23,24) or tin silver (No 28,29) in accordance with EN 29453. Pipes see EN 1057. Copper and copper alloy capillary fittings for soldering and brazing, see EN 1254-1 and EN 1254-5. Copper alloy compression fittings, see EN 1254-2. For push fit fittings see prEN 1254-7. For threaded ends see EN 1254-4.
<sup>a</sup>	Thread according to EN 10226-1			
<sup>b</sup>	Thread on transition fittings			
<sup>c</sup>	See national regulations and standards			
<sup>d</sup>	Corrosion risks have to be considered, see also national regulations and standards			
X	permissible			
-	not permissible			

Table 4 — Material for pipes and fittings, plastics (PE-X, PE, PVC-U)

Available jointing methods for plastics piping systems	Material for pipes									
	PE-X		PE						PVC-U	
	Plastic fittings	Metallic fittings <sup>c</sup>	Ductile iron	Malleable cast iron	Copper alloys	POM	PP	PE	Ductile iron	PVC-U
Welding (electro fusion, butt fusion, ....)	-	-	-	-	-	-	-	X	-	-
Solvent cemented joints	-	-	-	-	-	-	-	-	-	X
Threaded joint <sup>a</sup>	X <sup>b</sup>	X <sup>b</sup>	X <sup>b</sup>	X <sup>b</sup>	X <sup>b</sup>	X <sup>b</sup>	X <sup>b</sup>	X <sup>b</sup>	-	X <sup>b</sup>
Compression fittings	X	X	X	X	X	X	X	-	X	X
Crimped fittings	X	X	-	-	-	-	-	-	-	-
Sockets with elastomeric sealing ring and spigot ends	-	-	X	X	-	-	-	-	X	X
Push fit fittings	X	X	-	-	-	-	-	-	-	-
Flanges	X	X	X	X	X	-	X	X	X	X
Demountable unions	X	X	-	X	X	-	-	X	X	X
	Further statements									
	Pipes, fittings and pipe joints according to EN ISO 15875-1, ISO 15875-2 and EN ISO 15875-3 in conjunction with EN ISO 15875-5 and EN ISO/TS 15875-7.	Only joints with fitness for purpose of the PE-piping system according to EN 12201-5; fittings with compression or socket ends in accordance with EN 12842.	Only joints with fitness for purpose of the PE-piping system according to EN 12201-5; compression fittings in accordance with EN 10284.	Only joints with fitness for purpose of the PE-piping system according to EN 12201-5; compression fittings in accordance with EN 1254-3.	Only joints with fitness for purpose of the PE-piping system according to EN 12201-5.	Pipes, fittings and pipe joints according to EN 12201-1, EN 12201-2, EN 12201-3 in conjunction with EN 12201-5 and CEN/TS 12201-7. EN 14525	Socket fittings according to EN 12842, EN 14525	Pipes, fittings and pipe joints according to EN 1452-1, EN 1452-2, EN 1452-3 in conjunction with EN 1452-5 and ENV 1452-7.		
<sup>a</sup>	Thread according to EN 10226-1									
<sup>b</sup>	Thread on transition fittings									
<sup>c</sup>	Compatibility between pipe material and metallic material shall be demonstrated by the supplier.									
X	permissible									
-	not permissible									

Table 5 – Material for pipes and fittings, plastics (PVC-C, PP, PB)

Available jointing methods for plastics piping systems	Material for pipes								
	PVC-C			PP			PB		
	Material for fittings								
	Stainless steel	Copper alloys	PVC-C	Plastic fittings other than PP	Metallic fittings <sup>c</sup>	PP	Plastic fittings other than PB	Metallic fittings <sup>c</sup>	PB
Welding	-	-	-	-	-	X	-	-	X
Solvent cemented joints	-	-	X	-	-	-	-	-	-
Threaded joint <sup>a</sup>	X <sup>b</sup>	X <sup>b</sup>	-	X <sup>b</sup>	X <sup>b</sup>	X <sup>b</sup>	X <sup>b</sup>	X <sup>b</sup>	X <sup>b</sup>
Compression fittings	X	X	-	X	X	X	X	X	X
Crimped fittings	-	-	-	-	-	-	X	X	-
Sockets with elastomeric sealing ring and spigot ends	-	-	-	-	-	-	-	-	-
Push fit fittings	-	-	-	X	X	-	X	X	X
Flanges	X	X	X	X	X	X	X	X	X
Demountable unions	X	X	X	X	X	X	X	X	X
	<b>Further Commentaries</b>								
	Pipes, fittings and pipe joints according to EN ISO 15877-1, EN ISO 15877-2 and EN ISO 15877-3 in conjunction with EN ISO 15877-5 and EN ISO/TS 12731-7.			Pipes, fittings and pipe joints according to EN ISO 15874-1, EN ISO 15874-2 and EN ISO 15874-3 in conjunction with EN ISO 15874-5 and EN ISO/TS 15874-7.			Pipes, fittings and pipe joints according to EN ISO 15876-1, EN ISO 15876-2 and EN ISO 15876-3 in conjunction with EN ISO 15876-5 and EN ISO/TS 15876-7.		
<sup>a</sup>	Thread according to EN 10226-1								
<sup>b</sup>	Thread on transition fittings								
<sup>c</sup>	Compatibility between pipe material and metallic material shall be demonstrated by the supplier.								
X	permissible								
-	not permissible								