

Adhesives for thermoplastic piping systems for fluids under pressure — Specifications

ICS 83.180

National foreword

This British Standard is the UK implementation of EN 14814:2007. Together with BS EN 1452 Parts 1 to 5, it supersedes BS 4346-3:1982 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/52, Adhesives.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

Adhesives for thermoplastic piping systems for fluids under pressure - Specifications

Adhésifs pour systèmes de canalisations thermoplastiques
pour liquides sous pression - Spécifications

Klebstoffe für Druckrohrleitungssysteme aus
thermoplastischen Kunststoffen für Fluide - Festlegungen

This European Standard was approved by CEN on 29 December 2006.

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Contents

Page

Foreword.....	3
Introduction	4
Safety Statement.....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Requirements	6
4.1 General consideration	6
4.2 Shear strength.....	8
4.3 Pressure resistance.....	8
4.4 Shelf life	9
5 Evaluation of conformity.....	9
5.1 General.....	9
5.2 Initial type testing	10
5.2.1 General.....	10
5.2.2 Characteristics	10
5.2.3 Sampling, testing and conformity criteria.....	10
5.3 Factory production control (FPC)	10
5.3.1 General.....	10
5.3.2 General requirements.....	11
5.3.3 FPC requirements for all manufacturers.....	12
5.3.4 Raw materials and components.....	12
5.3.5 Sampling.....	12
6 Marking	13
Annex A (informative) Possible characterization test methods for adhesives for thermoplastic piping systems.....	14
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 89/106/EEC, EU Construction Products Directive.....	15
ZA.1 Scope and relevant characteristics	15
ZA.2 Procedure(s) for the attestation of conformity of adhesives for thermoplastic piping systems for fluids under pressure.....	16
ZA.2.1 Systems of attestation of conformity	16
ZA.2.2 Declaration of conformity	17
ZA.3 CE Marking	17
Bibliography	20

Foreword

This document (EN 14814:2007) has been prepared by Technical Committee CEN/TC 193 “Adhesives”, the secretariat of which is held by AENOR.

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 August 2007, and conflicting national standards shall be withdrawn at the latest by November 2008.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

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

Introduction

This product standard contains the requirements for adhesives for thermoplastic piping systems under pressure independent of piping system application. The existing system and application standards which specify parameters for adhesive joints in particular application areas and the test methods specified therein remain unchanged. The requirements referred to in these system standards concern temperature, pressure and standard life span of the piping system, and are applicable to all the components of the piping system for all the relevant dimensions that are required in the specified application.

This product standard completes the characterisation of the adhesives for thermoplastic piping systems in conjunction with another product standard EN 14680 "Adhesives for non-pressure thermoplastic piping systems - Specifications". These product standards are supported by standard test methods to which references are made through the texts.

Safety Statement

Persons using this document should be familiar with the normal laboratory practice, if applicable. This document does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any regulatory conditions.

1 Scope

This European Standard specifies the functional requirements and test methods for adhesives used for joining the components of unplasticised poly(vinyl chloride) (PVC-U), chlorinated poly(vinyl chloride) (PVC-C), acrylonitrile-butadiene-styrene (ABS) thermoplastic piping systems for fluids under pressure.

It provides for the evaluation of conformity of the adhesive for this EN.

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 923:2005, *Adhesives - Terms and definitions*

EN 1452 *Plastics piping systems for water supply - Unplasticized poly(vinyl chloride) (PVC-U)*

EN ISO 9001:2000, *Quality management systems - Requirements (ISO 9001:2000)*

EN ISO 9311-1, *Adhesives for thermoplastic piping systems - Part 1: Determination of film properties (ISO 9311-1:2005)*

EN ISO 9311-2, *Adhesives for thermoplastic piping systems - Part 2: Determination of shear strength (ISO 9311-2:2002)*

EN ISO 9311-3, *Adhesives for thermoplastic piping systems - Part 3: Test method for the determination of resistance to internal pressure (ISO 9311-3:2005)*

EN ISO 15493, *Plastics piping systems for industrial applications - Acrylonitrile-butadiene-styrene (ABS), unplasticized poly(vinyl chloride) (PVC-U) and chlorinated poly(vinyl chloride) (PVC-C) - Specifications for components and the system - Metric series (ISO 15493:2003)*

EN ISO 15877, *Plastics piping systems for hot and cold water installations - Chlorinated poly(vinyl chloride) (PVC-C)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 923:2005 and the following apply.

3.1

diametric clearance

difference between the mean outside diameter (d_{em}) of the pipe and the mean inside diameter (d_{sm}) of the socket

3.2

Definitions related to assessment of conformity

3.2.1

conformity assessment

any activity concerned with determining directly or indirectly that relevant requirements are fulfilled

[EN 45020:2006]

3.2.2

Batch Release Test (BRT)

test performed by the manufacturer on a batch of components, which has to be satisfactorily completed before the batch can be released

[EN 13566-1:2002]

3.2.3

Initial Type Test (ITT)

complete set of test or other procedures, determining the performance of samples of products representative of the product type

3.2.4

Type Test (TT)

test performed to prove that the material, component, joint or assembly is capable of conforming with the relevant requirements given in the System Standard

[CEN ISO/TS 15874-7:2003]

4 Requirements

4.1 General consideration

The manufacturer of the adhesive shall specify for which pressure system the adhesive is intended to be used, e.g. PVC-U for water supply (see EN 1452 series), ABS, PVC-U or PVC-C for industrial applications (see EN ISO 15493) or PVC-C for hot and cold water installations (see EN ISO 15877).

Unless otherwise specified in this clause, the test pieces shall fulfil the following requirements set in Tables 1 and 2: