BS EN 14680:2015

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Adhesives for non-pressure thermoplastics piping systems — Specifications

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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.

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Adhesives for non-pressure thermoplastics piping systems - Specifications

Adhésifs pour systèmes de canalisations thermoplastiques sans pression - Spécifications

Klebstoffe für drucklose thermoplastische Rohrleitungssysteme - Festlegungen

This European Standard was approved by CEN on 15 August 2015.

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European foreword

This document (EN 14680:2015) 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of an identical text or by endorsement, at the latest by April 2016, and conflicting national standards shall be withdrawn at the latest by July 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 14680:2006.

With respect to the previous version, no technical changes have been introduced in this standard, being the only modifications those relevant for its adaptation to the Construction Products Regulation EU nº305/2011.

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 basic work requirements of Regulation (EU) 305/2011.

For relationship with Regulation (EU) 305/2011, 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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

This European Standard contains the requirements for adhesives for non-pressure thermoplastic piping systems 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 require specified application.

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1 Scope

This European Standard specifies the 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) and styrene copolymer blends (PVC+SAN) thermoplastic piping systems for non-pressure applications (e.g. soil and waste discharge), independent of the application area.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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+A1:2008, *Adhesives — Terms and definitions*

EN 1055, *Plastics piping systems — Thermoplastics piping systems for soil and waste discharge inside buildings — Test method for resistance to elevated temperature cycling*

EN 1329-1, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: Specifications for pipes, fittings and the system*

EN 1401-1, *Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: Specifications for pipes, fittings and the system*

EN 1453-1, *Plastics piping systems with structured wall-pipes for soil and waste discharge (low and high temperature) inside buildings — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: Specifications for pipes and the system*

EN 1455-1, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Acrylonitrile-butadiene-styrene (ABS) — Part 1: Requirements for pipes, fittings and the system*

EN 1565-1, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Styrene copolymer blends (SAN+PVC) — Part 1: Specifications for pipes, fittings and the system*

EN 1566-1, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Chlorinated poly(vinyl chloride) (PVC-C) — Part 1: Specifications for pipes, fittings and the system*

EN 13476-2, *Plastics piping systems for non-pressure underground drainage and sewerage — Structured-wall piping systems of unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) — Part 2: Specifications for pipes and fittings with smooth internal and external surface and the system, Type A*

EN 13476-3, *Plastics piping systems for non-pressure underground drainage and sewerage — Structured-wall piping systems of unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) — Part 3: Specifications for pipes and fittings with smooth internal and profiled external surface and the system, Type B*

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

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3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 923:2005+A1:2008 and the following apply.

3.1
diametral clearance
difference between the mean inside diameter (d_{sm}) of the socket and the mean outside diameter (d_{em}) of the pipe

3.2
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

3.3
Type Test
TT
tests performed to prove that the material, component, joint or assembly is capable of conforming with the relevant requirements given in the System Standard

4 Product characteristics

4.1 General considerations

The manufacturer of the adhesive shall specify for which non-pressure system the adhesive is intended by reference to the appropriate standard as listed in Table 1.

Table 1 — Intended use standard list

PVC-U	EN 1401–1, EN 1453–1, EN 1329–1, EN 13476–2, EN 13476–3
PVC-C	EN 1566–1
ABS	EN 1455–1
PVC+ABS	EN 1565–1

When not otherwise mentioned, the test pieces shall fulfil the following requirements set in Tables 2 and 3:

Table 2 — Test pieces diametral clearance

PVC-U	$\left(0{,}6\,^{0}_{-0{,}1}\right)$ mm
PVC-C	$\left(0{,}6\,^{0}_{-0{,}1}\right)$ mm
ABS	$\left(0{,}6\,^{0}_{-0{,}1}\right)$ mm
SAN+PVC	$\left(0{,}6\,^{0}_{-0{,}1}\right)$ mm

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