PD CEN/TS 14999:2013

BSI Standards Publication

Adhesives for thermoplastic piping systems — Accelerated ageing test in storage container

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National foreword

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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.

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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Compliance with a British Standard cannot confer immunity from legal obligations.

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English Version

Adhesives for thermoplastic piping systems - Accelerated ageing test in storage container

Adhésifs pour canalisations thermoplastiques - Adhésifs pour canalisations thermoplastiques - Test de vieillissement accéléré des adhésifs

Klebstoffe für thermoplastische Rohrverbindungssysteme - Prüfung von Klebstoffen bei künstlicher Alterung im Lagerbehälter

This Technical Specification (CEN/TS) was approved by CEN on 4 March 2013 for provisional application.

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Contents

Page

Foreword **3**
1 Scope **4**
2 Normative references **4**
3 Terms and definitions **4**
4 Principe **4**
5 Apparatus **4**
6 Sampling **5**
7 Procedure **5**
8 Test Report **5**

Foreword

This document (CEN/TS 14999:2013) has been prepared by Technical Committee CEN/TC 193 “Adhesives”, the secretariat of which is held by AENOR.

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 CEN/TS 14999:2006.

CEN/TS 14999:2013 includes the following significant technical changes with respect to CEN/TS 14999:2006:

- Inclusion of environmental and safety statements on the foreword;
- Modification of title to be in line with the scope;
- New explanatory note added to the scope;
- Definition of the RH on standard conditions;
- Minor changes on the procedure.

SAFETY PRECAUTIONS — 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.

ENVIRONMENTAL PRECAUTIONS — It is understood that some of the material permitted in this standard may have negative environmental impact. As technological advantages lead to acceptable alternatives for these materials, they will be eliminated from this standard to the extent possible. At the end of the test, the user of the standard should take care to carry out an appropriate disposal of the wastes, according to local regulations.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this Technical Specification: 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.

1 Scope

This Technical Specification describes a method for an accelerated ageing test of an adhesive in its container. The result provides the manufacturer with an indication of the storage stability of the adhesive and container combination and their ability to retain adhesive properties.

The method described is intended for solvent based adhesives for thermoplastic piping systems but may be applied to other adhesive types if appropriate.

The method described in this Technical Specification does not give a correlation between the results obtained after the accelerated ageing test and after the shelf life of the adhesive at the ambient conditions defined by the manufacturer in the data sheet.

NOTE Some of the solvents used in adhesives applied for bonding pipe joints are highly flammable and may even cause explosion when heated (tetrahydrofurane). Therefore, the users of this standard need to take special precautions when testing such adhesives according to the provisions of this standard which require prolonged heating of the container with the adhesive.

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 12092, *Adhesives — Determination of viscosity*

EN 14680, *Adhesives for non-pressure thermoplastic piping systems — Specifications*

EN 14814, *Adhesives for thermoplastic piping systems for fluids under pressure — Specifications*

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

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

3 Terms and definitions

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

4 Principle

The sample is subjected to a combination of temperature and time under specified conditions, followed by comparison of the viscosity and the shear strength of the adhesive bond made with the aged sample with those of a reference sample that has been maintained under standard reference conditions; i.e. (23 ± 2) °C.

5 Apparatus

5.1 **Oven**, able to maintain a temperature of (50± 2) °C or (40± 2) °C.