BS ISO 19699-1:2017

BSI Standards Publication

Superabsorbent polymer — Sodium polyacrylate resin for absorbing blood

Part 1: Test methods

Documents
Document Sharing Hub

Full document details: BS ISO 19699-1:2017

National foreword

This British Standard is the UK implementation of ISO 19699-1:2017.

The UK participation in its preparation was entrusted to Technical Committee PRI/75, Plastics and rubber film and sheets.

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.

© The British Standards Institution 2017
Published by BSI Standards Limited 2017

ISBN 978 0 580 91304 4

ICS 83.140.99

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

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2017.

Amendments/corrigenda issued since publication

Date	Text affected

Documents
Document Sharing Hub

Full document details: BS ISO 19699-1:2017

INTERNATIONAL STANDARD

ISO 19699-1

First edition
2017-08

Superabsorbent polymer — Sodium polyacrylate resin for absorbing blood —

Part 1: Test methods

Résines super-absorbantes — Polyacrylate de sodium pour l'absorption du sang —

Partie 1: Méthodes d'essai

Reference number
ISO 19699-1:2017(E)

Documents
Document Sharing Hub

© ISO 2017

Full document details: BS ISO 19699-1:2017

COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

© ISO 2017 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO 19699-1:2017

Contents

Page

Foreword ... **iv**
Introduction ... **v**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **1**
4 Test methods ... **2**
4.1 General ... 2
4.2 Determination of amount of residual monomers ... 2
4.3 Determination of volatile content ... 3
4.4 Determination of pH ... 3
4.5 Determination of particle size distribution ... 3
4.6 Determination of bulk density ... 3
4.7 Determination of whiteness ... 3
4.8 Determination of simulated blood absorption capacity ... 3
4.8.1 General principle ... 3
4.8.2 Reagents ... 3
4.8.3 Apparatus ... 3
4.8.4 Sampling ... 3
4.8.5 Procedure ... 4
4.8.6 Calculation and expression of results ... 4
4.9 Determination of simulated blood absorption rate ... 5
4.9.1 General principle ... 5
4.9.2 Reagents ... 5
4.9.3 Apparatus ... 5
4.9.4 Sampling ... 5
4.9.5 Procedure ... 5
4.9.6 Calculation ... 6
Annex A (normative) **Preparation of simulated blood** ... **7**
Annex B (informative) **Comparison of human blood and simulated blood absorption capacity of SAP** ... **9**
Bibliography ... **10**

© ISO 2017 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO 19699-1:2017

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products.*

A list of all parts in the ISO 19699 series can be found on the ISO website.

© ISO 2017 – All rights reserved
Documents
Document Sharing Hub
Full document details: BS ISO 19699-1:2017

Introduction

The test methods described in this document have been practically used by relevant production enterprises for several years and have proven to be reliable with respect to common criteria of quality of test methods (validity, repeatability, etc.). They are applicable to testing superabsorbent polymer of sodium polyacrylate used in hygiene products (such as sanitary towels and pads) and medical products (such as tourniquets and surgery coats).

The International Organization for Standardization (ISO) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning test methods of simulated blood absorption capacity and simulated blood absorption rate given in 4.8 and 4.9.

ISO takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured ISO that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with ISO. Information may be obtained from:

Jinan Haoyue Resin Co., Ltd

Bucun District, Zhangqiu City, Shandong Province

China

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights other than those identified above. ISO shall not be held responsible for identifying any or all such patent rights.

© ISO 2017 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO 19699-1:2017