## INTERNATIONAL STANDARD

ISO 20743

Third edition 2021-06

# Textiles — Determination of antibacterial activity of textile products

Textiles — Détermination de l'activité antibactérienne des produits textiles



ISO 20743:2021(E)



#### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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 CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Contents			Page	
Fore	Forewordv			
Intr	oductio	1	vi	
1	Scope		1	
2	-	native references		
3		s and definitions		
4	·	y precaution		
5		ratus		
6	Reagents and culture media 6.1 Water			
	6.2	Water Tryptone soya broth (TSB)		
	6.3	Tryptone soya agar (TSA)		
	6.4	Agar for transfer		
	6.5	Nutrient broth (NB)		
	6.6	Peptone salt solution		
	6.7	Physiological saline		
	6.8	Soybean-Casein Digest Broth with Lecithin & Polysorbate 80 (SCDLP) medium	5	
	6.9	Dilution buffer for shake-out bacterial suspension	6	
	6.10	Neutralizing solution		
	6.11	Enumeration agar (EA)		
	6.12 6.13	Agar for printingCryoprotective solution for bacterial species		
	6.14	Stock solution of ATP standard reagent		
	6.15	Buffer solution for ATP luminescent reagent		
	6.16	ATP luminescent reagent		
	6.17	ATP extracting reagent		
	6.18	ATP eliminating reagent		
	6.19	SCDLP or other medium for preparing ATP reference solution		
	6.20	Shake-out physiological saline	9	
7		ence strains		
	7.1	Strains		
	7.2	Restoration and storage of strains		
		7.2.1 General 7.2.2 Ceramic bead method		
		7.2.2 Ceramic bead method		
_	_	7		
8	Test procedures			
	8.1	Absorption method (see Annex E)		
		8.1.1 Incubation of test strain		
		8.1.3 Preparation of test specimens		
		8.1.4 Test operation		
		8.1.5 Test results		
	8.2	Transfer method (see Annex E)		
		8.2.1 Preparation of test inoculum	15	
		8.2.2 Preparation of specimens		
		8.2.3 Test operation		
	0.0	8.2.4 Test results		
	8.3	Printing method (see Annex E)		
		8.3.1 Incubation of test strain		
		8.3.3 Pretreatment of specimen		
		8 3 4 Test operation	10 19	

### ISO 20743:2021(E)

8.3.5 Test results	21
9 Judgement of antibacterial efficacy	22
10 Test report	22
Annex A (normative) Strain numbers	23
Annex B (normative) Shaking method	24
Annex C (normative) Quantitative measurement by plate count method	25
Annex D (normative) Quantitative measurement by luminescence method	26
Annex E (informative) Testing examples	28
Annex F (informative) Efficacy of antibacterial activity	31
Bibliography	32

#### 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 <a href="www.iso.org/directives">www.iso.org/directives</a>).

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 <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

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

For an explanation of 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 <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 38, *Textiles*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 248, *Textiles and textile products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 20743:2013), which has been technically revised.

The main changes compared to the previous edition are as follows:

- Clause 2 has been updated;
- some NOTEs have been changed to regular text;
- Annex F has been updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at <a href="https://www.iso.org/members.html">www.iso.org/members.html</a>.