

ISBN 978-0-626-30531-4

SANS 14045:2014

Edition 1

ISO 14045:2012

Edition 1

SOUTH AFRICAN NATIONAL STANDARD

Environmental management — Eco-efficiency assessment of product systems — Principles, requirements and guidelines

This national standard is the identical implementation of ISO 14045:2012 and is adopted with the permission of the International Organization for Standardization.

WARNING
This standard references other
documents normatively.

SANS 14045:2014

Edition 1

ISO 14045:2012

Edition 1

Table of changes

Change No.	Date	Scope

National foreword

This South African standard was approved by National Committee SABS/TC 207, *Environmental management*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This SANS document was published in May 2014.

SANS 14045:2014
**INTERNATIONAL
STANDARD**

**ISO
14045**

First edition
2012-05-15

**Environmental management — Eco-
efficiency assessment of product
systems — Principles, requirements
and guidelines**

*Management environnemental — Évaluation de l'écocoefficacité des
systèmes de produits — Principes, exigences et lignes directrices*



Reference number
ISO 14045:2012(E)

© ISO 2012



COPYRIGHT PROTECTED DOCUMENT

© ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General description of eco-efficiency	3
4.1 Principles of eco-efficiency	3
4.2 Phases of an eco-efficiency assessment	4
4.3 Key features of an eco-efficiency assessment	5
5 Methodological framework	5
5.1 General requirements	5
5.2 Goal and scope definition (including system boundaries, interpretation and limitations)	5
5.3 Environmental assessment	7
5.4 Product system value assessment	8
5.5 Quantification of eco-efficiency	9
5.6 Sensitivity and uncertainty analysis	9
5.7 Interpretation	9
6 Reporting and disclosure of results	10
6.1 General requirements	10
6.2 Further reporting requirements for comparative eco-efficiency assertion intended to be disclosed to the public	10
7 Critical review	11
7.1 General	11
7.2 Critical review by internal or external expert	11
7.3 Critical review by panel of interested parties	12
Annex A (informative) Examples of functional value, monetary value, other values and value indicators	13
Annex B (informative) Examples of eco-efficiency assessment	14
Bibliography	38