

PAS 7770:2024

Energy-related consumer products – Environmental performance assessment – Guide



Office for Product
Safety & Standards

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Published by BSI Standards Limited 2024.

ISBN 978 0 539 23285 1

ICS 13.020.01; 13.020.30, 97.030; 97.200.50; 97.220.01

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Publication history

First published September 2024

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Foreword

This PAS was sponsored by the Office for Product Safety and Standards (OPSS), part of the Department for Business and Trade. Its development was facilitated by BSI Standards Limited, and it was published under licence from The British Standards Institution. It came into effect on 30 September 2024.

Acknowledgement is given to David Lovell of DSL Consulting, as the technical author, and the following organizations that were involved in the development of this PAS as members of the steering group:

- AMDEA
- Beko
- John Lewis Partnership
- Circular Economy Hub
- CPIN
- Defra
- Design Council
- DESNZ
- Intertek
- National Physical Laboratory
- TechUK
- Which?
- WWF

Acknowledgement is also given to the members of a wider review panel who were consulted in the development of this PAS.

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Presentational conventions

The guidance in this document is presented in roman (i.e. upright) type. Any recommendations are expressed in sentences in which the principal auxiliary verb is "should".

Additional commentary, explanation and general informative material is presented in smaller italic type.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. "organization" rather than "organisation").

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Compliance with a PAS cannot confer immunity from legal obligations.

Attention is drawn to the following applicable legislation:

- The General Product Safety Regulations 2005 [1];
- The Ecodesign for Energy-Related Products Regulations 2010, as amended¹⁾ [2];
- The Energy Information Regulations 2011, as amended²⁾ [3];
- The Restriction of Hazardous Substances Regulations 2012, as amended [4];
- The Persistent Organic Pollutants Regulations 2007, as amended [5];
- The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 [6];
- The Waste Equipment and Electronic Equipment Regulations 2013, as amended [7];
- The Packaging (Essential Requirements) Regulations 2015 [8];
- The Producer Responsibility Obligations (Packaging Waste) Regulations 2007 [9];

¹⁾ The Ecodesign for Energy-Related Products and Energy Information Regulations 2021 [2] provide updated requirements for a number of products. However, there are many other regulations which establish the product-specific requirements. These product-specific regulations sit under the Ecodesign for Energy-Related Products Regulations 2010 which establish the enforcement and compliance regime for ecodesign and labelling requirements. They can be found here: <https://www.gov.uk/guidance/placing-energy-related-products-on-the-uk-market>

²⁾ The Ecodesign for Energy-Related Products and Energy Information Regulations 2021 [3] provide updated requirements for a number of products. However, there are many other regulations which establish the product-specific requirements. These product-specific regulations sit under the Energy Information Regulations 2011 which establish the enforcement and compliance regime for ecodesign and labelling requirements. They can be found here: <https://www.gov.uk/guidance/placing-energy-related-products-on-the-uk-market>

- The Batteries and Accumulators (Placing on the Market) Regulations 2008, as amended [10];
- The Waste Batteries and Accumulators Regulations 2009, as amended [11];
- The Electrical Equipment (Safety) Regulations 2016 [12];
- The Environment Act 2021 [13];
- The Ecodesign Directive (2009/125/EC) [14]; and
- Regulation (EU) 2017/1369 of the European Parliament and of the Council [15].

0 Introduction

0.1 General

This PAS provides guidance for all organizations in scope to standardize assessing the environmental performance of a product across its full product life cycle. It aims to help organizations to navigate the wide variety of environmental and circular economy related laws and standards to help achieve Net Zero targets and provide consumers with information to make greener or more sustainable choices.

It is important that organizations identify which clauses are relevant to their products (it can be one or more) and implement the relevant requirements.

0.2 Applicable legislation

In particular, attention is drawn to the applicable legislation listed in the foreword.

The pieces of legislation listed in the foreword overlap but primarily cover the product safety and Ecodesign and labelling of energy-related consumer products.

The global position with regards to standard production is both vast and piecemeal, the research³⁾ carried out specifically to produce PAS 7770 returned a total of 156 unique relevant standards from the British, international and European Standards Development Organizations of interest.

PAS 7770 looks to consolidate good practice from these relevant standards which will be particularly beneficial to businesses from a practical implementation perspective.

³⁾ <https://pages.bsigroup.com/environmental-performance-assessment-of-energy-related-products-standards-landscape>

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1 Scope

This PAS gives guidance on the framework for assessing the environmental performance of a product across its full product life cycle. This PAS gives guidance on the measurement and reporting of the environmental performance of energy-related consumer products.

This PAS covers consumer products.

NOTE *Examples of such consumer products are, although this is not an exhaustive list:*

- a) *household appliances;*
- b) *consumer electronics;*
- c) *gas boilers and heat pumps;*
- d) *leisure and sports equipment; and*
- e) *toys.*

This PAS gives guidance on assessing the environmental performance of the end product as well as the environmental impact of the product development, including resource management and greenhouse gas (GHG) emissions, from:

- 1) raw material extraction and processing;
- 2) design;
- 3) production;
- 4) packaging;
- 5) transportation;
- 6) use; and
- 7) end of life.

This includes reduced usage of materials, resources and extended longevity of the product through product care, re-use, recycling and replacement of product materials and parts during the product lifetime, and as part of the end-of-life product transformation or waste management.

This PAS gives guidance on issues regarding product functionality, and product user safety, that might be introduced as a result of replacing or repairing product parts. For example, chemical risks associated with both virgin and recycled materials.

This PAS gives guidance on the documentation and the information to be made available to consumers with and/or on the product or product parts as a result of the assessments carried out.

This PAS does not cover:

- i) vehicles such as cars or motorbikes;
- ii) medical devices;
- iii) food and consumables;
- iv) products covered by the Construction Products Regulations [16]; and
- v) products designed for use in a commercial or industrial environment.

This PAS is for use by product owners responsible for the design and manufacture of applicable products. Product consumers, policy setters and those working in associated fields such as recyclers, repurposers, repairers and retailers might also benefit from implementation of the PAS.

2 Normative references

There are no normative references in this document⁴⁾.

⁴⁾ Documents that are referred to solely in an informative manner are listed in the Bibliography.

3 Terms and definitions

For the purposes of this PAS, the following terms and definitions apply

3.1 carbon footprint

the sum of all greenhouse gases (GHG) emitted throughout the product life cycle including during the in-use phase

3.2 corrective action

action undertaken with the intention of removing potential for harm and to reduce risk from a product which is not a safe product or has poor environmental performance

[SOURCE: PAS 7100:2022, 3.1.3, modified, "or has poor environmental performance" added]

3.3 critical raw materials (CRM)

materials that are economically important and have a high-risk associated with their supply

3.4 design

development from concept through specification to the final creation of the finished product

3.5 eco-efficiency

aspect of sustainability relating the environmental performance of a product system to its product system value

3.6 electro-mechanical product

product that is powered by electricity and have parts that move while it is working

3.7 embodied carbon

the sum of all greenhouse gases (GHG) emitted throughout all phases of the product life cycle

3.8 emission

release of gases, particles, or energy to the environment

3.9 end-of-life

life cycle stage of a product starting immediately after the in-use stage

3.10 energy related products (ErP)

products that use energy, or that do not use energy but have an indirect impact on energy consumption, including parts intended to be incorporated into energy-related products of which the environmental performance can be assessed independently

3.11 environmentally benign

has no significant environmental effect