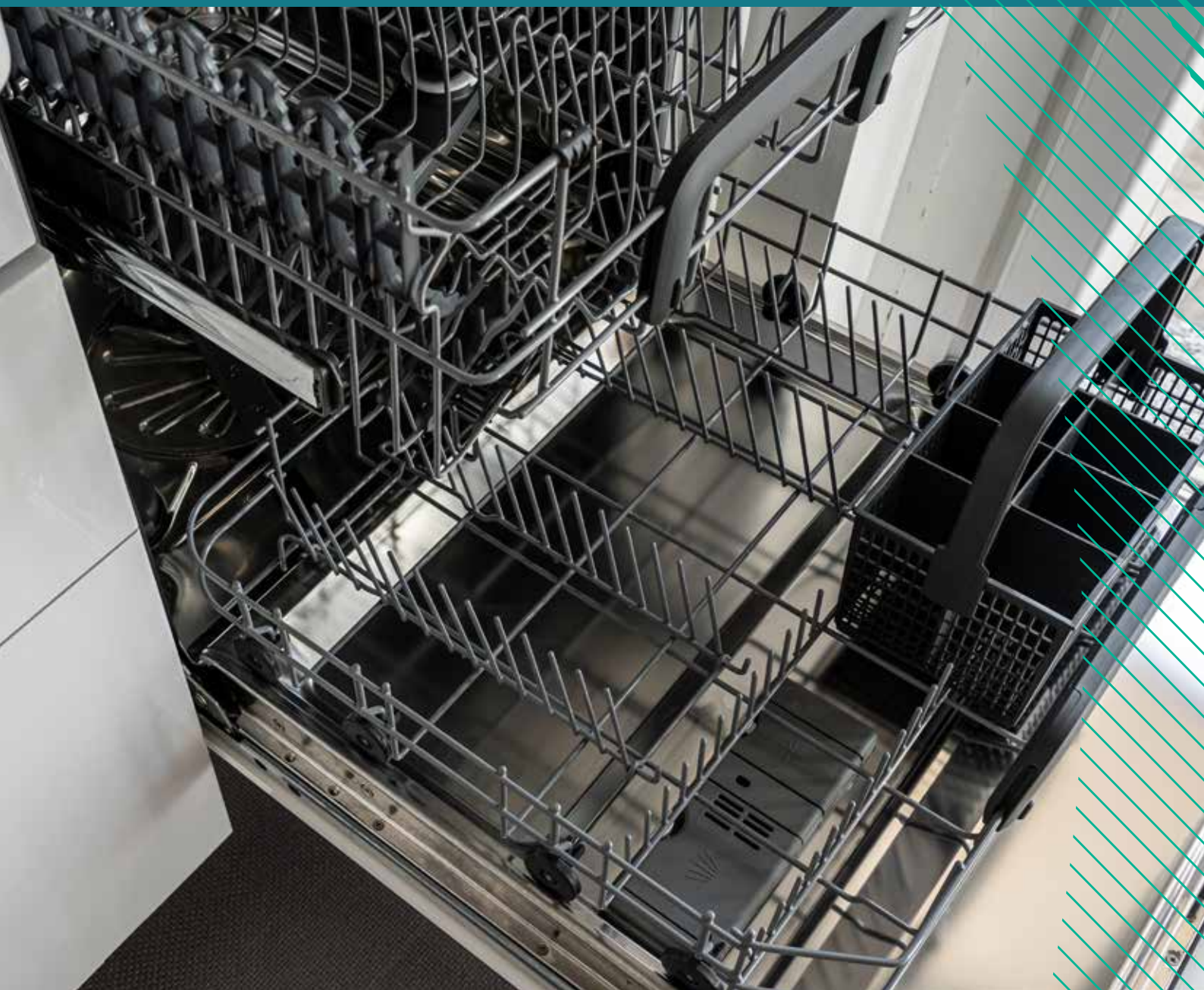


Household Dishwashers

Ecodesign & Energy Labelling
Compliance Assessment

Interim Report



Household Dishwashers: Ecodesign and Energy Labelling Compliance Assessment

Interim report

Date: August 2023

Sustainable Energy Authority of Ireland

SEAI is Ireland's national energy authority investing in, and delivering, appropriate, effective and sustainable solutions to help Ireland's transition to a clean energy future. We work with the public, businesses, communities and the Government to achieve this, through expertise, funding, educational programmes, policy advice, research and the development of new technologies.

SEAI is funded by the Government of Ireland through the Department of the Environment, Climate and Communications.

© Sustainable Energy Authority of Ireland

Reproduction of the contents is permissible provided the source is acknowledged.

Contents

Introduction.....	4
Relevant legislation	5
Market screening and product selection.....	5
Assessment of compliance with formal (administrative) requirements	6
Results.....	11
Summary.....	12

Introduction

This report gives an overview of the results of ecodesign and energy labelling market surveillance of household dishwashers. Organised between 2021 and 2022 by the Sustainable Energy Authority of Ireland (SEAI), this work was conducted as part of ongoing national market surveillance activities relating to the Ecodesign Directive 2009/125/EC and Energy Labelling Regulation (EU) 2017/1369.

It identifies the levels of non-compliance encountered relating to household dishwasher products that were available on the Irish and broader European market, and may facilitate a degree of comparison over time between other household dishwasher market surveillance initiatives. This interim report summarises the findings from product assessments carried out to date while noting, as detailed within this report, that a small number of cases are still ongoing.

At the beginning of this product campaign, the Market Surveillance Authority (MSA) for ecodesign and energy labelling in Ireland was the Minister for the Environment, Climate and Communications. SEAI supported the Minister by organising market surveillance on his behalf. The MSA designation transferred to SEAI in December 2022.

Relevant legislation

The regulations and standards in force at the time and used to verify compliance of the household dishwashers were:

Applicable regulations:

- Commission Regulation (EU) 2019/2022 of 1 October 2019 laying down ecodesign requirements for household dishwashers pursuant to Directive 2009/125/EC of the European Parliament and of the Council amending Commission Regulation (EC) No 1275/2008 and repealing Commission Regulation (EU) No 1016/2010
- Commission Delegated Regulation (EU) 2019/2017 of 11 March 2019 supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of household dishwashers and repealing Commission Delegated Regulation (EU) No 1059/2010

Applicable standards:

- EN 60436 Electric dishwashers for household use — Methods for measuring the performance
- EN 60704-2-3:2019/A11:2019 Household and similar electrical appliances — Test code for the determination of airborne acoustical noise — Part 2-3: Particular requirements for dishwashers

Market screening and product selection

A longlist of household dishwashers in scope of the regulations was compiled from several sources in order to provide, insofar as possible, a reasonable representation of the household dishwasher products available on the Irish market. Sources included household dishwasher product listings on electrical retailers' and manufacturers' websites offering products for sale on the Irish market.

A risk-based approach was taken to product selection, with a higher level of risk assigned to products with greatest market penetration, budget brands, lower cost models and new market entrants. Using this approach, 15 models were selected for assessment from 10 different manufacturers.

Assessment of compliance with formal (administrative) requirements

Formal written requests for the provision of appropriate technical documentation were issued to 10 manufacturers relating to 15 household dishwasher products. Technical documentation was received for all 15 products.

Upon initial assessment of the 15 responses received, the MSA concluded that no complete technical documentation file indicating compliance with ecodesign and energy labelling requirements was provided. Though based on SEAI's experience, it is quite common to encounter high levels of formal non-compliance, the level of non-compliance encountered here is concerning.

Over the course of the campaign, it was discovered that a manufacturer had placed three dishwasher products of different brands on the Irish market in error in early 2021, as the products were intended for the UK market alone. The manufacturer confirmed that the products in question had been removed from the market and were no longer available for sale through the vendors identified by SEAI. Following examination of received technical documentation and confirmation by the manufacturer of satisfactory rectification of their error, the MSA decided not to undertake any further assessment of these products. It was also decided not to undertake any further assessment of a product from a different manufacturer which had been discontinued in 2020. As a result, a total of 11 household dishwashers were fully assessed during this campaign.

The following provides a summary of the findings of the formal compliance assessments undertaken, with further explanation provided below. These findings relate to the initial assessment of compliance based on the technical documentation provided. Where non-compliance was identified, this was addressed by manufacturers through engagement with SEAI during the formal compliance assessment phase.

Summary of formal compliance assessments

11 assessments completed

Percentage shows compliance

Declaration of Conformity

45%



Technical Documentation

0%



Website Information

0%



Product Information Sheet

100%



Energy Label

100%



The findings of the formal compliance assessments are summarised and described as follows:

Declaration of Conformity refers to non-compliant aspects of the Declaration of Conformity (DoC) encountered. These typically included missing references to the applicable regulation and test standards.

Technical documentation non-compliances include:

- absence of certain relevant documentation or specific aspects required
- incomplete product information or product information not set out in the required format
- technical documentation values not supporting the declared values
- no test conditions or measurement methodologies described
- compliance with resource efficiency requirements not fully established

Energy label refers to non-compliances related to incorrect energy labels.

Product information sheet refers to non-compliances related to incorrect format, or the non-provision of the relevant information from the product information sheet in manuals or brochures.

Website information meaning non-compliances relating to the supplier's website, where there is typically a failure to provide all of the required ecodesign-related information on free access websites.

% Non-compliant refers to the percentage of instances where non-compliance with respect to the applicable regulations have been identified by the MSA. Actions carried out by the economic operator to rectify such formal non-compliances when identified by the MSA are referred to as 'corrective actions'.

% Compliant refers to the percentage of instances where compliant documents were provided (usually after more than one request), and where no non-compliances were identified and no changes required from the economic operator.

The most common non-compliances encountered when assessing technical documentation were related to resource efficiency requirements, requested documentation not submitted and the harmonised standard not referenced in the product DoC.

Assessment of compliance with technical requirements (laboratory testing)

Laboratory testing can be undertaken by an MSA in order to verify whether a product meets the requirements of the relevant regulations. Typically, this involves testing one unit of the product and if this fails to meet the requirements of the regulations, another three units of the same product must be tested to verify non-compliance.

Three household dishwashers were selected for verification testing in a laboratory, based on findings from the technical documentation checks (e.g., results for product testing deemed at risk of not meeting limit values, non-provision of requested information).

An appropriate laboratory was selected for testing through a procurement exercise and an individual unit of each of the three selected models was purchased from website suppliers. These units were shipped to the testing laboratory in accordance with a chain of custody procedure for testing, with purchase and shipping of the products undertaken in a single batch between December 2021 and February 2022.

The following parameters were measured and reported upon by the laboratory:

- Eco Programme Energy Consumption (EPEC)
- Energy Efficiency Index (EEI)
- Eco Programme Water Consumption (EPWC)
- Airborne Acoustic Noise Emissions (dB)
- Duration of the Eco Programme (T_i)
- Cleaning Performance Index (I_c)
- Drying Performance Index (I_D)
- Power consumption in off mode (P_o)
- Power consumption in standby mode (P_{sm})

where:

Eco Programme Energy Consumption (EPEC) refers to the energy consumption of a household dishwasher for the eco programme, expressed in kilowatt hour per cycle.

Energy Efficiency Index (EEI) refers to the ratio of the eco programme energy consumption to the standard programme energy consumption.

Eco Programme Water Consumption (EPWC) refers to the water consumption of a household dishwasher for the eco programme, expressed in litres per cycle.

Airborne Acoustic Noise Emissions refers to the noise emissions of a household dishwasher model measured and/or calculated using the eco programme, with the household dishwasher loaded at rated capacity.

Duration of the Eco Programme (T_i) refers to the length of time beginning with the initiation of the eco programme, excluding any user programmed delay, until the end of the programme is indicated and the user has access to the load.

Cleaning Performance Index (I_c) refers to the ratio of the cleaning performance of a household dishwasher to the cleaning performance of a reference household dishwasher.

Drying Performance Index (I_D) refers to the ratio of the drying performance of a household dishwasher to the drying performance of a reference household dishwasher.

Results

None of the three models tested achieved the minimum Cleaning Performance Index required under the regulation. In addition, one out of three of the products tested did not achieve the Drying Performance Index level required under the regulation. However, with application of the verification tolerances set out in the regulation, all products tested were deemed to be compliant for the parameters tested.

Test product ID no.	Required Cleaning Performance Index (I _C)	Measured Cleaning Performance Index (I _C)	Test results
1	1.12	0.98	Pass within tolerance
2	1.12	1.06	Pass within tolerance
3	1.12	0.99	Pass within tolerance

Table 1: Initial testing results for Parameter Cleaning Performance Index (I_C)

Test product ID no.	Required Drying Performance Index (I _D)	Measured Drying Performance Index (I _D)	Test results
1	1.06	0.99	Pass within tolerance
2	1.06	1.16	Pass
3	1.06	1.12	Pass

Table 2: Initial testing results for Parameter Drying Performance Index (I_D)

As all three products were deemed compliant for the parameters tested during the initial round of product testing, triplicate testing of these products was not required.

Summary

Of the 11 products for which technical documentation assessment was undertaken, formal non-compliances were identified in all cases. The main source of formal non-compliance identified related to the non-provision of relevant technical documentation, and the omission of resource efficiency requirements information from technical documentation and manufacturer's free access websites as set out in the regulations. Where formal non-compliances were identified, in most instances, they have been voluntarily rectified by the economic operators, without the need for formal enforcement measures. Following engagement with the manufacturers and corrective actions being applied, nine out of 11 products were deemed to have been brought into compliance and the corresponding cases closed. Engagement is ongoing in relation to the remaining two case files.

It is noted that the resource efficiency requirements laid out under Annex II of Regulation 2019/2022 are a relatively new aspect to ecodesign legislation for energy-related products, and it appears some manufacturers are having difficulty in both achieving and demonstrating compliance with these requirements. Engagement is ongoing with two manufacturers of dishwasher products relating to the two open case files where issues remain with resource efficiency requirements. It is expected that these cases will be resolved through being brought into compliance.

Further market surveillance activity of household dishwasher products commenced in Q4 2022, with a further 15 household dishwasher products currently being assessed. This campaign will focus on those household dishwasher brands where formal non-compliances were identified, along with household dishwasher brands not previously engaged with by SEAI. The results of these product assessments will be included in a summary report for household dishwashers, along with the findings of this campaign.



Rialtas na hÉireann
Government of Ireland

Sustainable Energy Authority of Ireland

Three Park Place
Hatch Street Upper
Dublin 2
Ireland
D02 FX65

w: www.seai.ie
e: info@seai.ie
t: 01 8082100

