

HIGHLIGHTS IN CIRCULAR ECONOMY STANDARDIZATION

CEN-CLC SABE CE-TG WORKSHOP 1 - 25 FEB 2022 - VIRTUAL

CENELEC TC 59X

CHRISTIAN DWORAK, CO-CONV WG23



ABOUT CENELEC TC 59X

- CLC/TC 59X **Performance** of household and similar electrical appliances
- Scope: **methods of measurement** of characteristics which are of importance to determine **the performance of electrical appliances for household use** or of electrical appliances for **commercial use** and that are of interest for the use
- standards are developed in order to suit the needs of **EU Regulations and Directives** and in the context of the **European market**.
- CLC/TC 59X/**WG 23 Material efficiency** of household and similar electrical appliances
- CLC/TC 59x is a member of CEN/CENELEC **Ecodesign Coordination Group**

CENELEC TC 59X OBJECTIVES AND STRATEGIES (3 TO 5 YEARS)

- Following the regulation activities of the EU Commission; preparation of Harmonized European
- Standards according to the **Standardization Requests**
- Integration of smart technologies / smart household appliances, battery-operated appliances and household robots
- **Steadily improve measurement accuracy and reproducibility**; systematic round robin testing
- Improve measurement methods to better fit to the real use and to avoid possible test circumventions
- **Integrate material efficiency aspects**

CENELEC TC 59X MARKET TRENDS

- **Energy efficiency** is the most important market trend. In this context, climatic change is an important factor
- The **durability** of the products or parts of the products is a new topic which has to be addressed by the standardisation.
- **Measurement methods** have to be developed to follow the requirements of the regulators.

CENELEC TC 59X WG23 CIRCULAR ECONOMY AND MATERIAL EFFICIENCY STANDARDIZATION

- **CLC/FprTR 50727** (pr=74539) Household and similar electrical appliances - Material Efficiency - **Assessment of applicability of EN 4555X**
 - 2021-09-15 (started)
 - Under final approval 2022-03-04
- **Scope:**
 - summarises the **observations** on the EN 4555X series of standards **in view to applying** them to household and similar electrical appliances.
 - **highlights** where **further work** on metrics and measurement methodologies is **necessary** or may be needed for household and similar electrical appliances beyond each of the EN 4555X standards

CLC/FprTR 50727 (PR=74539) HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES - MATERIAL EFFICIENCY - ASSESSMENT OF APPLICABILITY OF EN 4555X

TECHNICAL REPORT
RAPPORT TECHNIQUE
TECHNISCHER BERICHT

FINAL DRAFT
CLC/FprTR 50727

December 2021

ICS 13.020.20; 97.030

English Version

Household and similar electrical appliances - Material Efficiency - Assessment of applicability of EN 4555X

Appareils électriques ménagers et analogues - Efficacité
matérielle - Evaluation de l'applicabilité de las normes EN
4555X

Elektrische Geräte für den Hausgebrauch und ähnliche
Zwecke - Materialeffizienz - Bewertung der Anwendbarkeit
von EN 4555X

This draft Technical Report is submitted to CENELEC members for vote by correspondence.
Deadline for CENELEC: 2022-03-04.

It has been drawn up by CLC/TC 59X.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a Technical Report. It is distributed for review and comments. It is subject to change without notice and shall not be referred to a Technical Report.

Contents		Page
European foreword.....		3
Introduction		3
1 Scope		5
2 Normative references		5
3 Terms and definitions		5
4 General considerations		5
5 Special considerations for applying the EN 4555X series of standards to household and similar electrical appliances.....		6
5.1 EN 45552 - General method for the assessment of the durability of energy-related products		6
5.2 EN 45553 - General method for the assessment of the ability to remanufacture energy-related products.....		7
5.3 EN 45554 - General methods for the assessment of the ability to repair, reuse and upgrade energy-related products.....		7
5.4 EN 45555 - General methods for assessing the recyclability and recoverability of energy-related products.....		8
5.5 EN 45556 - General method for assessing the proportion of reused components in energy-related products.....		8
5.6 EN 45557 - General method for assessing the proportion of recycled material content in energy-related products.....		8
5.7 EN 45558 - General method to declare the use of critical raw materials in energy-related products		9
5.8 EN 45559 - Methods for providing information relating to material efficiency aspects of energy-related product.....		9
6 Summary of applicability		9
Bibliography		10

FUTURE PLANNED ACTIVITIES RELATED TO CE AND ME

- New Work Item Proposal (under construction)
 - Durability – Measurement methods for the assessment of the reliability of washing machines for household use
 - measurement methods to assess the **reliability** of washing machines for household use (functional analysis, limiting events/states, environmental conditions conditions and level of confidence on the measurement results)
 - **interrelations of reliability, reparability and upgradeability** with consideration towards a durability assessment for washing machines for household use.
 - investigate the **assessment of reparability** for washing machines for household use
 - **relevance of upgradeability** for washing machines

RECOMMENDATIONS

- Start as soon as possible to discuss and integrate Material Efficiency in your TC.
- Based on EN 4555x a structured discussion and integration into product TCs specific context is possible.

SABE TOPIC GROUP CIRCULAR ECONOMY (CE-TG)



Thanks for your
participation!