



# SLOVENSKI STANDARD

## oSIST prEN 17988-2:2023

01-september-2023

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**Krožna zasnova ribolovnega orodja in opreme za akvakulturo - 2. del: Priročnik za uporabo in označevanje**

Circular design of fishing gear and aquaculture equipment - Part 2: User manual and labelling

Kreislaufwirtschaft von Fischfanggeräten und Aquakulturausrüstungen - Teil 2: Benutzerhandbuch und Kennzeichnung

<https://standards.iteh.ai/catalog/standards/sist/b652dfef-1345-4aa1-b2c0-000100000001/osist-pr-en-17988-2-2023>

**Ta slovenski standard je istoveten z: prEN 17988-2**

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**ICS:**

13.020.20	Okoljska ekonomija. Trajnostnost	Environmental economics. Sustainability
65.150	Ribolov in ribogojstvo	Fishing and fish breeding

**oSIST prEN 17988-2:2023**

**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 17988-2**

July 2023

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ICS

English Version

## Circular design of fishing gear and aquaculture equipment - Part 2: User manual and labelling

Grundsätze und Benutzerhandbuch von  
kreislauforientierten Fischfanggeräten

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 466.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (prEN 17988-2:2023) has been prepared by Technical Committee CEN/TC 466 “Circularity and recyclability of fishing gear and aquaculture equipment”, the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

EN 17988-2 consists of the following parts, under the general title Circular design of fishing gear and aquaculture equipment:

Part 1: General requirements and guidance

Part 2: User manual and labelling

Part 3: Technical requirements

Part 4: Environmental and circularity requirements and guidelines

Part 5. Circular business models

Part 6. Requirements for digitalization of information on fishing gear and components

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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## Introduction

Directive (EU) 2019/904 of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment (“Single Use Plastic directive”, SUP) lays down rules on different plastic products, including fishing gear and aquaculture equipment containing plastics, and sets requirement to the Member States to establish Extended Producer Responsibility schemes (EPR schemes). It also contains rules on minimum national annual collection rates and on reporting fishing gear placed on the market and waste fishing gear collected in ports.

In accordance with Article 8(9) of the Directive, in 2021 the Commission Implementing Decision M/574 on a standardization request to the European Committee for Standardization as regards circular design of fishing gear and aquaculture equipment in support of Directive (EU) 2019/904 was approved.

Based on the mandate, a standard with 6 parts and a technical report (TR) on terms and definitions have been developed by CEN/TC 466.

The purpose of this series of documents is to provide the stakeholders with requirements and guidelines to address the different aspects of circular design of fishing gear and aquaculture equipment, including encourage preparing for re-use and facilitate recyclability at end of use. The standard parts are developed not only to support the Single Use Plastics directives (SUP), but the Port Reception Facilities directive and the Extended Producer Responsibility, (ERP) as well.

The standard parts specify requirements and guidance for the circular design of fishing gear and aquaculture equipment containing plastics that could be applied in the design, manufacturing, use and recycling of such fishing gear/equipment.

The fishing gear and aquaculture equipment included in Single-Use Plastics (SUP) and Extended Producer Responsibility (EPR) are those that include plastics. Traditionally, many fishers and aquaculturists extend fishing gear life by repairing the gear or equipment and use retrieved gear or equipment for spare parts.

Fishing gear, depending on the fishing gear used and the fisher, can last several years (nets and lines) to decades (prawn pots and mixed pots). However, a larger scale of waste results from domestic waste found at sea, and to a lesser extent Abandoned, Lost or Discarded Fishing Gear / Aquaculture Equipment (ALDFG) brought back to land. Many fishers actively collect ALDFG and domestic waste encountered as it negatively impacts their resources and can be hazardous to the vessel or its gear. Disposal of this waste is not always practical with a lack of port facilities and often costly to the fisher who retrieved it to dispose of in landfills.

The main material in current commercial fishing gear and aquaculture equipment is plastic. Typically, the range of ALDFG found consists of four expected dominant polymer types, namely: PA6 (Polyamide 6 (Nylon)) and PET (polyethylene) as high-density polymers, and PP (polypropylene), PE (polyethylene) as polyolefins. The specific plastics vary greatly, with many gears constructed from more than one type. Due to the mixed materials found in ALDFG, pre-processing prior to recycling is important. Pre-processing includes washing, shredding, manual separation, density separation and a final washing. However, fishing gear disposed of responsibly can often be cleaned and separated thus reducing processing procedures. Requirements and guidance on these stages are found in part 3 (Technical requirements), part 4 (Environmental and circularity requirements and guidelines) and part 5 (Circular business models).

This document, part 2 of the series of standards, specifies the requirements for the user manuals and other information (including labelling) that accompanies circular designed fishing gear and

aquaculture equipment, to enable traceability and proper management during the lifetime of fishing gear and aquaculture equipment components.

The main target groups for part 2 are the fishing gear and aquaculture equipment makers, netting producers, and raw material producers, that need to provide user manuals and information to the users. In addition, also others involved in the chain of recycling used and wasted gear, and other stakeholders could be considered as well.

Stakeholders that will need to be provided with user manuals include fishers, aquaculture companies, collectors (of wasted gear), sorters, those who are doing maintenance (including washing and cleaning), and distributors. Information that needs to be provided to authorities could also be covered by user manuals or labelling.

For overview of stakeholders, see part 1 – General requirements and guidance.

For a full outline of the parts of the standard, and how the parts relate to each other, see part 1.

The focus of this document is on circularity. It does not address other conservation aspects, efficiency, etc. To be practical and efficient user manuals and labelling systems will cover all aspects of importance. When implementing the requirements and guidance in these standard parts, balanced trade-offs to other issues therefore need to be taken into account.

For the same reason, the information for user manuals required by this standard might be included in user manuals with a wider, more comprehensive, scope.

The intention with this multipart standard is also to facilitate for organizations to contribute to the UN Sustainability Goals, 9 Industry, innovation, and infrastructure, 12 Responsible consumption and production and 14 Life below water, especially SDG 14.1 that aims by 2025, prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution.

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**prEN 17988-2:2023(E)****1 Scope**

This document specifies the requirements for the user manuals and other information (including labelling) that accompanies circular designed fishing gear and aquaculture equipment, to ensure traceability and proper management during the lifetime of fishing gear components.

This document is applicable to all fishing gear and aquaculture equipment makers, providing gear or equipment that include plastics.

**2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC/IEEE 82079-1:2019, *Preparation of information for use (instructions for use) of products - Part 1: Principles and general requirements*

**3 Terms and definitions**

No terms and definitions are listed in this document.

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

**4 Requirements for user manual****4.1 General**

General requirements to comply with the IEC/IEEE 82079-1 standard

The content for 'information for use' applies to all phases of fishing gear and aquaculture equipment life cycle and comprises information based on three pillars:

- a) Conceptual information: concepts, explanations and descriptions that enable the target groups to perform tasks by understanding their purpose and the principles of operation of the supported fishing gear or aquaculture equipment.
- b) Instructional information: procedures and task-oriented step-by-step instructions.
- c) Reference information: troubleshooting, maintenance schedule, commands or codes.

In order to comply with the IEC/IEEE 82079-1 standard, the general requirements and checklist could be found in Normative Annex A and B

Specific stakeholder requirements

Fishing gear and aquaculture equipment makers shall provide user manuals to stakeholders where applicable.



Fishing gear and aquaculture equipment makers shall identify which stakeholders need to be provided with user manuals. When preparing instructions for use, the needs and capabilities of the intended stakeholders shall be addressed.

Stakeholders shall be taken into account, where applicable, include:

- a) Users of gear/equipment (including fishers, aquaculturists).
- b) Those who repair gear/equipment.
- c) Those who provide maintenance services (e.g. washing, cleaning).
- d) Distributors.
- e) Those who are licensed to collect, sort (including pre-sorting) and transport used or wasted gear/equipment.
- f) Recyclers.
- g) EPR bodies.
- h) Other stakeholders, e.g. authorities, might also be considered.

The user manual(s) shall include the needs listed in 4.2 (Selecting/sourcing of materials and components; 4.3 (Manufacture/assemble/install); 4.4 (Use and maintenance); 4.5 (End of use stage) that are applicable for the identified stakeholders.

#### 4.2 Selecting / sourcing of materials and components

##### a) **Conceptual information:**

At this stage in the life cycle of the product, information on materials and components will be aggregated in order to be added and collated once the gear and components are assembled or manufactured.

The information gathered at this stage will be used throughout the elaboration of the user manual in order to guarantee the proper care of the product to maximize its lifetime and to allow for its preparation for reuse (reuse, repair, refurbish, re-manufacture, repurpose), recycling, recovery and disposal stages.

##### b) **Infrastructural information:**

The information on the materials shall include, where applicable:

- Alignment with Single-Use Plastics (SUP) Directive.
- Organization or an individual that enters into an agreement with the acquirer for the supply of a product or service.
- Aggregation of data for reporting:
  - o Amount of circular material in gear.

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- o Information on the expected lifetime when available and for reliable sources (e.g. Product Environmental Footprint (PEF)).
- o Information on materials used.

**c) Reference information:**

- The data on materials should be gathered and integrated onto a table titled ‘Template for material reporting’ with the format included in normative Annex F.
- Eco-modulation of fees.
- Extended Producer Responsibility (EPR) relevance.
  - o Note: EPR is defined in Part 1
- Collect information on “waste” treatment options.
- Collect information on installation care for materials, i.e. Lubrication requirements or avoid contact with certain types of surfaces or chemicals during installation.
- For usage and maintenance:
  - o Storage conditions to maximize lifetime.
  - o Environmental conditions to be avoided (e.g. extreme temperatures, UV radiation).
  - o Avoid contact with chemicals (such as specific cleaning products).
  - o Control release or leaching of potentially environmentally polluting materials such as coatings with biocides.
  - o Information on mechanical limitations of the gear such as avoid compression, cyclic loading or other stresses that could reduce the lifetime of the gear.
  - o Mixed materials under specific conditions can be recycled
- For end of use:
  - o Include information on disposal of materials with specific requirements such as biocides.

**4.3 Manufacture/assemble/install****a) Conceptual information:**

Fishing gear and/or aquaculture equipment are composed of mixed types of plastics, metal pieces including metal weights, natural materials such as wood in otter boards, and are sometimes treated with copper-based antifouling coatings. Fishers across Europe customise their gear for the particular circumstances in which they operate, including adapting nets, ropes and floats to target species and for functionality at sea.

Typically local net manufacturers assemble gear while the manufacturing of raw materials is generally done by other companies. Fishing gear components, such as ropes and nets are then constructed. There is a market for selling components directly to users who then assemble the final fishing gear themselves, or use the components to replace or repair parts of other gear. Other users purchase fully assembled fishing gear directly from manufacturers and suppliers, and are often involved in the gear design and specification.

At this stage in the life cycle of a product, the manual will be drawn integrating the information from the materials and components and taking into account a holistic approach in order to have circularity front and centre for the user and downstream stakeholders.

b) **Infrastructural information:**

The manual shall include sections focused on:

- **Assembly of gear**
  - o This section should include a description of the fishing gear design which allows for the easy identification of the components.
  - o This could be done by using a drawing or diagram or using other alternative tools that will guarantee the identification of the components within the gear
  - o An example of such design is included in Annex C.
- **Components**
  - o In order to maximize the circularity of the components describe the:
    - o Potential lifetime extension of the component.
    - o Preventive maintenance plan.
    - o Possible re-usage options.
    - o Possible recycling options for the component.

See Annex D for an example of a list of components with the relevant information.

c) **Reference information**

**Materials**

- The materials are chosen based on durability, accessibility, weight and cost. Four envisaged dominant polymer types, namely: PA6 and PET (polyethylene) as high-density polymers, and PP (polypropylene), PE (polyethylene) as poly-olefins. The specific plastic might vary greatly, with many gears constructed from more than one type. Due to the mixed materials expectation pre-processing prior to recycling is important. Pre-processing includes washing, shredding, manual separation, density separation and a final washing. However, gear disposed of responsibly can often be cleaned and separated thus reducing processing procedures.

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- This section should include the information described in 4.1 regarding the types of materials, quantities, potential end of life and proper care for the materials used in each component and if deemed necessary also within the subcomponents.

An example of a material matrix based on the SUP format table is included as Annex E.

**Gear taxonomy**

- The fishing gear type code list (see informative Annex F) is based upon a study to support the implementation of obligations set out in the Single-Use Plastics (SUP) and Port Reception Facilities (PRF) Directives. The suggested taxonomy provides a single classification for fishing and aquaculture gear. The taxonomy is simple and readily accessible to the different entities that will have to report gear quantities under the SUP and PRF Directives, some of them being gear specialists (e.g. gear suppliers) and some of them not being necessarily gear specialists (e.g. waste collectors, producer responsibility organisations, port authorities, Member State authorities). The taxonomy also includes all separate components, substances or materials that were part of or attached to such fishing gear as suggested by the definition of waste in point 1 of Article 3 of Directive 2008/98/EC.
- Each nation/country can set up their own additional taxonomies. However, reporting on gear collected as waste must be at least comparable to the reporting on gear placed on the market because it forms part of the mass balance approach. In this way it will be possible to define collection targets and monitor their achievement.

**4.4 Use and maintenance****4.4.1 Needs for use of fishing gear and aquaculture equipment****a) Instructional information**

In order to aid the user in the circularity of fishing and aquaculture gear and equipment, the minimum requirements for the manual shall include information on:

- Material information (including amounts)
- Information on disassembly and dismantling (optional: dismantling information)
- Maintenance information (including any recommendation for preventive maintenance)
- Information on repair, including spare parts and material for information
- Information on care and maintenance, lifetime and material composition, and intended EOL disposal method.
- Proper installation guidelines should be set in this section to guarantee the maximum durability for the components.
- Precautions and information to avoid that gear/equipment get damaged or lost related to e.g. strengths or weights of material and utilities, or weather conditions.
- This section should also include the necessary materials to be made available for proper usage and maintenance during the lifetime of the gear.

## b) Reference information

An example of how this information could be included in the manual is described in Annex F

Suggested placement of labels/marks in relation to gear type which is adopted based upon the FAO Guidelines detailed in Annex G

**4.4.2 Needs for maintenance and repair operations**a) **Instructional information**

Minimum requirements include information from stakeholder's perspective on:

- Material information
- Information on disassembly and dismantling
- Maintenance information (including any recommendation for preventive maintenance)
- Information on reparation, including spare parts and material for information
- Expected lifetime of components
- Disposal information

**4.4.3 Needs for preparation for reuse**

## a) Conceptual information

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- Component lifetime is typically described in years or number of cycles. Nevertheless, these are for reference purposes and will vary according to the region and the conditions in which the material is used but also the frequency and haul load in each cycle.
  - The information on lifetime allows the user and or refurbishing company to extend the usage of components to their full potential, avoiding premature disposal of the material.

## b) Instructional information

- Minimum requirements include information on:
  - o Materials used in different parts of the gear/equipment.
  - o Types of plastics.
  - o Instructions on disassembly to facilitate reuse (any of the reuse categories).
  - o Precautions, if any, e.g. for occupational health and safety of for environmental concerns.
  - o Optional information on organizations (e.g. EPR schemes) that provide take-back systems for reuse.