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**Smernice za načrtovanje recikliranja plastičnih gradbenih izdelkov -  
Toplotnoizolacijski proizvodi iz ekspaniranega polistirena (EPS)**

Design-for-recycling guidelines for plastic construction products - Thermal insulation products of expanded polystyrene (EPS)

Design-for-Recycling-Leitlinien für Bauprodukte aus Kunststoff - Wärmedämmstoffe aus expandiertem Polystyrol (EPS)

Lignes directrices pour la conception en vue du recyclage des produits de construction en plastique - Produits d'isolation thermique en polystyrène expansé (EPS)

**Ta slovenski standard je istoveten z: prEN 18092**

oSIST prEN 18092:2024

**ICS:**

13.030.50	Recikliranje	Recycling
83.080.20	Plastomeri	Thermoplastic materials
91.100.60	Materiali za toplotno in zvočno izolacijo	Thermal and sound insulating materials

**oSIST prEN 18092:2024**

**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 18092**

June 2024

ICS 13.030.50; 83.080.20; 91.100.60

English Version

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## **European foreword**

This document (prEN 18092:2024) has been prepared by Technical Committee CEN/TC 88 “Thermal insulating materials and products”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

# **iTeh Standards (<https://standards.iteh.ai>) Document Preview**

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## Introduction

The term “design for recycling” is used in various contexts. It might encourage the development of products in a way that they can easily be recycled after the use phase. However, in the construction industry, products generally must fulfil requirements as given in national regulations on essential characteristics as described in harmonized product standards. To enable the declaration of these required characteristics, a number of data must be collected and evaluated including data for raw material that is the starting point for these products. If it would be necessary to change the raw material and/or the product itself in order to improve its recyclability, it must first be checked whether this change affects one of the above-mentioned basic requirements. All the processes described above to maintain the safe use of building products still have to be taken into account.

Another key difference from e.g. the consumer goods industry is the duration of use of construction applications. Plastics used in construction sometimes remain there for the entire life of the building, which can be decades and even more than a hundred years. This implies that recycling of the construction materials used does not take place until much later, which is why there are only small quantities available from demolition that can be added to new applications as recycled materials. Nevertheless, the recycling rate can be increased by ensuring that other waste streams are also accepted as recycled content so that they can contribute to a circular economy. In the production of EPS products, the use of recycled material is common practice for years long before the recycling discussion was opened. Driver for that was the avoidance of waste or recovery of waste. This means that the currently existing applications are already designed in a way that they can accept a certain amount of recycled material while still complying with the basic requirements for construction works.

The term “rEPS” according to the standardization request M/584 must be understood as “rEPS raw material” which is an expandible raw material as an outcome of a recycling process. It must not be confused with an expanded polystyrene insulation board which is produced from an EPS or rEPS raw material.

In the context of EPS recycling, EPS scraps generated in the factory cutting lines are routinely returned to the moulding process even if, according to the Waste Framework Directive (WFD 2008/98/EC), they are not classified as waste. Clean cut-offs from construction sites can meet the same quality criteria as internally reused material (IRM). The same technical procedures can be used regardless of the origin of the material.

For the given reasons, the purposes of this document DfR can also be used to evaluate how past EPS insulation-based application and materials can be recycled, as well as future construction techniques and materials. Future recycling processes even might be able to recycle products that were produced with ingredients which are not used anymore. However, this is not requested by the SReq.