

Specification sheet

**MONOMATERIAL
PRODUCT DESIGN
COMPETITION**

01. Introduction

a. What we want to do?

As environmentally responsible producer we would like to have in our portfolio products that after end of lifecycle could be easily disposed due to their composition.

We would like to have a product(s) that is created out of monomaterial and belongs to the “soft seating” category. What products belong to this category:

- Armchairs
- Lounge chairs
- Sofas
- Modular elements for seating

Additionally all above could be accompanied by the low table (but this element will be treated as additional and might be noted as a plus).

What is monomaterial?

In plastics technology, the term “monomaterial” is used in connection with products whose individual components are all based on the same polymer. If this is a thermoplastic, the product can be completely and efficiently mechanically recycled as a “single-type material” – without any prior dismantling process. This simplifies recycling processes. Not only does this reduce waste, it also conserves natural resources.

PET was selected as the polymer for this design competition, from which all components, including textiles, are to be manufactured. If necessary also fabric made from recycled PET material can be used for soft mesh components such as cushions etc.

b. Description:

Looking and analysing the documents describing technical properties of the »Monomaterial Design Set« of Fraunhofer CCPE and possible applications using PET – please create the idea of the product that can be produced out of this.

Your product idea has to fulfil following criteria:

- Created must be at least 1 pcs of product;
- The product type has to belong to category soft seating and by this we mean following types of product: armchair, sofa, lounge, modular elements for seating, etc.
- It might be single product or the whole line including many models (product with some versions – e.g. lower and higher backrest or different kind of bases) and it might be created together with some additional elements (e.g. table); depending on the entries more elements might be getting better notes
- All elements/components of the product have to be created out of the Fraunhofer CCPE »Monomaterial Design Set«, meaning components might be created out of different structures and compositions (consider “The Basics” and especially the “Advanced Manufacturing”, to increase e.g. stability and/ or lightweight design);

- Fabric made from recycled PET material can be used if necessary - for example, to cover soft PET mesh components such as cushions
- The product should be created having in mind safety of the user (so enough strength for sitting in it and not falling over)
- Product is predicted to be used inside office

The product has to be described by the renderings or sketches and basic technical drawings. Additionally the entry should be accompanied by the document with description of the product and its idea.

02. Requirements:

Product type:

- Soft seating

Requirements:

- Basic polymer: PET
- Recycled PET if necessary
- No other polymers, no wood and no metals are allowed
- Choose one or more of the suggested manufacturing techniques from the Fraunhofer CCPE »Monomaterial Design Set« (PDF) for your new product design concept
- Plastic welding or screwless connections should be used to join components together
- Use one colour maximum
- Safe
- Stable

What is required for entry:

- Render of the product(s)
- Description of the idea

03. Submission Format and delivery

Each competition entry must be submitted in one single PDF file containing the following elements:

- Rendered images or sketches of the proposed product(s)
- Short written description of the idea, including design intent and functionality

File format and size:

- Format: PDF
- Maximum size: 20 MB

Submission deadline:

- 03.03.2026

Submission address:

Entries must be sent electronically to: marketing.de@nowystyl.com