

2021

Design For A Natural World

The Brief

In a world where product sustainability is paramount, the need for durable, high quality products is becoming increasingly important. Yet as a global community we continue to design, manufacture and sell products specifically destined for limited life.

Many consumers are increasingly frustrated by the poor design, quality and throwaway nature of many day-to-day products and are worried about what happens to them when they reach their end of life.

The Design Innovation in Plastics Award challenges you to design a product commonly used outdoors in our natural environment. It should be a practical and innovative product made primarily from plastics, with emphasis on form and function. Your focus should be on delivering a high quality solution that represents value for money rather than low cost. It could be as simple as redesigning a domestic garden bird feeder, or something which improves the natural habitat for our wildlife – but you may have other ideas!

Your design will showcase the environmental positives and longevity of existing polymer materials, potentially exploring the possibility of using recycled plastics, and our judges will want to see how you plan to market the benefits of your design and its green credentials.

Rules

Your entry must be made predominantly in plastic and any suitable polymeric material may be used.

A list of recommended websites and publications is available on the following page.

1. Originality:

Design submitted **MUST** be your own idea and, to the best of your knowledge, no similar product has ever been on the market.

2. Model / prototype:

not required at the preliminary judging stage. Models and prototypes are crucial at the final judging stage to show essential working elements.

3. Summary of key points:

a clear description (approx. 300 words) of the function of the design and why there is a need for the product, together with one sentence summarising its 'unique selling point'.

4. Technical description:

a description (approx. 300 words) of overall dimensions, materials and specified plastics, and anticipated method of production.

5. Costing:

Evidence that raw materials and production costs have been considered in ensuring a realistic unit cost has been established

6. Sustainability:

A clear explanation as to how the design addresses environmental, economic and social issues.

7. Formats:

A submission entirely in digital format will not be accepted.

Important Dates

Closing Date
April 31st 2021

Preliminary Judging
May 1st 2021

Final Judging
May 29th 2021

Awards Ceremony
July 3rd 2021

8. Software:

Indication the software system(s), if any, that have been used in the development of the submission.

9. Visual presentation:

The product and the processes that have led to its development to be submitted **ONLY** on maximum 3x A3 paper, preferably 100gsm, unmounted without rolling or folding.

NOTHING WILL BE RETURNED. Photographs of concept models are always helpful.

Extra material may be submitted on a CD/DVD or USB memory stick, using only MS Office software and maximum play time two minutes.

Note that any source files containing animation sequences within the presentation should be saved on the disc within the same folder as the presentation itself, otherwise they may not work.

Plastics Processes



[Covestro](#)

Headline industry sponsor of the competition and one of the world's largest producers of polymers and high-performance plastics.

Download the Covestro Sample Lab app to discover the world of polymers. Download free at Google Play or Apple App Store.



[Materials Information Service \(MIS\)](#)

Primarily aimed at helping professionals to select appropriate materials and processes, but will help students if queries are relatively straightforward.



[The British Plastics Federation \(BPF\)](#)

The leading trade association of the UK plastics industry. Its website provides educational information through

Plastipedia, the world's largest on-line plastics encyclopedia, providing an A-Z of plastics. an introduction to processes and applications, animations illustrating processing methods, and a costing guide.



[PlasticsEurope](#)

Good source of information about plastics sustainability and recycling plus facts about plastics

Designing with Plastics



[Circular Design Guide](#)

The design thinking approach that underpins this guide allows you to explore new ways to create sustainable, resilient, long-lasting value in the circular economy – giving you the creative confidence to redesign the world around you.



[The Museum of Design in Plastics \(MoDiP\)](#)

the only accredited museum in the UK with a focus on plastics. It is the UK's leading resource for the study and interpretation of design in plastics. MoDiP is a specialist research resource at the Arts University Bournemouth.



[Design Council](#)

The UK's strategic body for design providing information about all aspects of managing design, including choosing materials and careers in design.

This web-site offers a significant knowledge base on design practice with a strong focus on inclusive design both for business decision-makers and as an educational resource.



[Ellen MacArthur Foundation](#)

Today's linear 'take, make, dispose' economic model relies on large quantities of cheap, easily accessible materials and energy, and is a model that is reaching its physical limits. A circular economy is an attractive and viable alternative that businesses have already started exploring today.



[Tangram Technology](#)

Consulting Engineers for plastics products. This site provides an Introduction to Plastics and Processing plus downloadable Design Guides for Plastics by Clive Maier, Econology, Ltd

Plastics Processes



Proto Labs

Proto Labs Services provides designers and engineers with Firstcut® CNC Machining and Protomold® injection moulding in a wide range of plastics for prototyping and short run manufacturing.

www.protolabs.co.uk/resources/design-tips/



The British Plastics Federation (BPF)

All the processes you might need are listed in the BPF's Plastipedia Processes section here.

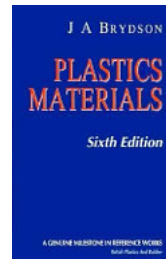
Recommended Publications



Manufacturing Processes for Design Professionals

Rob Thompson

Design Innovation in Plastics Award winner 2001, Thames & Hudson 2007, ISBN 978-0-500-5137-0. Comprehensive resource with illustrated sections on plastics materials and moulding processes.



Plastics Materials

John Brydson, Butterworth-Heinemann.

The classic reference for information about commercially available plastics materials. Now in its seventh edition, it includes the latest polymers. ISBN (print): 9780750641326, ISBN (eBook): 9780080514086

Intellectual Property



[Click here to open our Guidance notes on Intellectual Property](#)



Intellectual Property Office

Essential information from the intellectual property office.