



FANTASTIC PLASTIC

Moscow Design Museum's Fantastic Plastic exhibition showcases 13 designer products made of recycled waste.

The key message of Moscow Design Museum's second Fantastic Plastic exhibition is to show that used household items made from polymers are more than just waste. The display features more than 300 items created from recycled or reused plastic. After a forced hiatus caused by the second wave of the coronavirus pandemic, the exhibition, showcasing 40 international and Russian designers, reopened on 21 January and is due to run until 30 May 2021. Below we provide an overview of some of the exhibition's highlights.

THE DISPLAY FEATURES MORE THAN 300 ITEMS CREATED FROM RECYCLED OR REUSED PLASTIC

1. POLYARUS bags

Alexandra Polyarus, designer and founder of the POLYARUS brand, collaborated with adidas in 2018. After the World Cup, adidas was looking for ways to reuse the 2,000 sq m of banners left on its hands. This is how the POLYARUS shopper came to life, made from the recycled advertising banners.



Photo: polyarus.store

2. 111 Navy Chair

Emeco is a US chair manufacturer, with most of its products handmade using recycled materials. The company's history goes back to 1944, when the first Navy Chair was designed for the US Navy. Back then, the model was made from recycled aluminium, as the metal was in short supply during the Second World War. Recognised as a design icon, the Navy Chair is still in production today. In 2010, Coca-Cola offered to partner with Emeco to reduce the amount of plastic bottles sent to landfill. The collaboration resulted in a new model designed after the iconic Navy Chair but made of plastic, with each chair taking 111 used polyethylene terephthalate (PET) bottles to make. Over 270 thousand chairs have been sold since launch, preventing an estimated 30 million bottles from ending up in landfill.



Photo: mondo.cl

3. Futurecraft and Primeblue sneakers

In 2020, Germany's adidas teamed up with Parley, a social movement seeking to change people's consumerist attitudes towards the planet and promote environmental consciousness through education and networking, to launch Primeblue, an eco-friendly sportswear collection. The Primeblue range includes sports tops, T-shirts, leggings, shorts and trainers made from recycled materials, which contain 50% ocean plastic.

IN 2019, THE MAJORITY OF ADIDAS T-SHIRTS AND TRAINERS WERE MADE USING SUSTAINABLE TECHNOLOGIES, AND IN SOME SPECIAL COLLECTIONS CREATED THROUGH THEIR COLLABORATION WITH PARLEY, ALL PRODUCTS ARE 75% RECYCLED POLYESTER

For years, Parley has been actively combatting ocean pollution, partnering with multiple businesses to expand uses for its collected plastic.

Adidas, which has committed itself to reducing the environmental footprint of its operations, is also focused on using recycled materials. In 2019, the majority of adidas T-shirts and trainers were made using sustainable technologies, and in some special collections created through their collaboration with Parley, all products are 75% recycled polyester.



Photo: parley.tv

4. Bionic's RAW for the Oceans apparel collection

Bionic produces high-grade fabrics and polymers made with coastal and marine plastic. Its proprietary Bionic Yarn is highly versatile: it can be used as is, or as a component of fabrics for suitcases, carpets, shoes, vehicles, swimwear, ropes and other products. Bionic collaborates with brands such as Timberland, Hunter Douglas, Moncler and Chanel. Rapper Pharrell Williams, Creative Director at Bionic, has also created several collections for the Dutch brand G-Star RAW. The name of its 2015 denim collection, RAW for the Oceans, is a play on the brand's name itself, with all models from this line made from bionic yarn with a high percentage of recycled ocean plastic.



Photo: g-star.com

5. Bureo skateboards from recycled fishing nets

Bureo works with fishermen living in South America's coastal areas to transform discarded fishing nets into high-end consumer products: skateboards, sunglasses, board game elements, furniture items and more. Studies have shown that seines and nets make up 10% of ocean plastic and pose a serious threat to marine life and underwater ecosystems. The production process at Bureo starts with the collection of recyclable fishing nets from Chilean coastal communities. The recovered materials are then cleaned and sorted. Following the preparation stage, these materials are shredded and melted into pellets, which are then moulded into a new product. In partnership with Carver, Bureo has developed two skateboard models, with their decks made entirely from recycled nets. The Minnow Cruiser model takes about 3 sq m of recycled material to produce, while the Ahi Performance Cruiser takes about 5 sq m.



Photo: facebook.com/BureoSkateboards

6. ECONYL regenerated nylon

The ECONYL brand produces Econyl, or regenerated nylon, a revolutionary material for the fashion and interior design industries. This yarn, which is identical to brand new nylon, is used to make extremely durable swimwear, bags and carpets. Iconic brands such as Prada, Burberry, adidas and H&M use regenerated nylon to create products that can be recycled over and over again without loss of quality. The first stage in ECONYL production involves collecting waste like fishing nets, carpet flooring, fabric scraps and industrial plastic from landfill sites all over the world, as well from the seas and oceans. These recyclables are then sorted and cleaned to extract as much nylon as possible, and through an intensive regeneration process nylon waste is recycled back to its original purity level. For every 10,000 tonnes of ECONYL produced, 70,000 barrels of crude oil can be saved and 57,100 tonnes of CO₂ equivalent emissions avoided.



Photo: pradagroup.com

GALINA LARINA, A DESIGNER AND ECO-ACTIVIST, HAS MADE HER OWN PLASTIC MELTING MACHINE TO TURN POLYETHYLENE BAGS INTO RAINCOATS, BUCKET HATS, UMBRELLAS, BACKPACKS AND EVEN FURNITURE

7. PLASTICDOOM raincoats

Galina Larina is a graphic designer, illustrator, researcher, eco-activist and creator of PLASTICDOOM, a brand focusing on recycling plastic bags to design new functional clothing, accessories and interior items. The brand's key messages are responsible consumption, waste recycling and the sustainable use of natural resources. Galina has made her own plastic melting machine to turn polyethylene bags collected from public places into raincoats, bucket hats, umbrellas, backpacks and even furniture. The designer's first collection was displayed at the Khlebozavod creative space in Moscow, after which it became part of the Wearable Expressions exhibition in California. The items created as part of the project have been exhibited in Los Angeles, USA; Tbilisi, Georgia; and Eindhoven, the Netherlands.



Photo: [instagram.com/plasticdoom](https://www.instagram.com/plasticdoom)

8. Overtreders W and bureau SLA's People's Pavilion

The People's Pavilion was the main meeting place and central discussion platform at Dutch Design Week 2017. Dutch architect studios Overtreders W and bureau SLA were commissioned to design the site and proposed an unconventional approach to green construction – all of the materials needed to create the 250 sq m pavilion were borrowed for nine days. This “100% borrowed” principle meant that all elements of the building could not be bolted, glued, drilled or sawed – they had to be returned to their owners undamaged. The elements were held together with straps and steel bands, with tiles made from household plastic waste according to an in-house design by bureau SLA and Overtreders W. The People's Pavilion thus opens up a new future for green architecture – combining a powerful design with new social collaborations and the use of intelligent construction technologies.



Photo: [archdaily.com](https://www.archdaily.com)

BULYASH TODAEVA'S PRESS PLASTIC PROJECT, A PRESS FOR RECYCLING PLASTIC WASTE INTO SHEET MATERIAL, WON THE LEXUS DESIGN AWARD RUSSIA TOP CHOICE 2020

9. A press to recycle plastic waste

Bulyash Todaeva is an industrial designer, sustainability engineer, co-founder of Birzha Studio and creator of zerowaste.lab. Todaeva's Press Plastic project, a press for recycling plastic waste into sheet material, won the Lexus Design Award Russia Top Choice 2020. The project objectives are to develop technical and organisational solutions to support industrial enterprises on their circular economy journey and help them minimise production waste. The exhibition showcases some of the project's finished products – the results of experimenting with recycled plastic, including furniture, accessories and other art and design objects.



Photo: misis.ru

10. Hot Wire Extensions' waste nylon furniture and light fixtures

The young sustainable design brand, founded in London by Swiss designer Fabio Hendry, promotes a pioneering manufacturing process based on its experimentation with materials and design methods. The process uses waste selective laser sintering (SLS) nylon powder, a material from 3D printing that is currently not recycled; instead, it is usually re-used several times before simply being discarded.

The process starts by creating a shape using nichrome wire, which sits within a container filled with a mixture of silica sand and nylon powder. An electric current is passed through the wire, causing the surrounding nylon to melt and grow around the form. This transforms the granular material into hard, flawlessly fused, bone-like structures built around the wire. This technology opens up limitless opportunities for creating objects of various shapes, sizes and applications. Hot Wire Extensions makes furniture, light fixtures, sculptures and spatial installations, and also bespoke, made-to-order pieces. Fabio Hendry's clients include public institutions, design galleries, stores and private individuals.



Photo: hotwireextensions.com

TO MAKE ONE XXX BENCH, DESIGNED FOR THE MUNICIPALITY OF AMSTERDAM, IT TAKES EXACTLY THE SAME AMOUNT OF PLASTIC WASTE AS THE AVERAGE AMSTERDAM COUPLE PRODUCES IN ONE YEAR

11. The New Raw's Print Your City project

The Print Your City project by the Rotterdam-based design & research studio The New Raw is an experiment in the use of plastic waste when designing urban space. As the very name of the project suggests, Print Your City is a call to action, rallying citizens to recycle household plastic waste into raw material for public furniture, made with a 3D printer.

All items designed by the studio offer ergonomic benefits and additional functionality, such as bicycle parking. The first outcome of the project was the XXX bench, a furniture piece designed for the municipality of Amsterdam. To make one bench, it takes exactly the same amount of plastic waste as the average Amsterdam couple produces in one year. In addition, The New Raw studio demonstrated its potential in Thessaloniki, Greece as part of the Zero Waste Future campaign organised by Coca-Cola, presenting an installation of street furniture.



Photo: thenewraw.org

12. Rethinking – an apparel collection

Jacob Yakubov, an artist, gallerist and founder of the WHO I AM brand, explores the potential of recycled materials through Rethinking. Rethinking is the name of an exhibition hosted by his gallery that showcases sculptures by Katerina Sadowski and Lilia Li-Mi-Yan, as well as a capsule clothing collection created by the artists in collaboration with WHO I AM. Items in this collection are made fully or partially from recycled materials. The collection relies heavily on Biflex, a synthetic material made from recycled fibres, with the collection's dress and jumpsuit made from it. Other items in the collection include a transparent cape made of recycled PET film, as well as an organza shirt and dress, decorated with sequins made of PET sheets, the type commonly used in outdoor advertising. The Rethinking project has prompted the contributing artists to turn to materials that are new to them, and in this context plastic is no longer perceived as a problem, but as a resource for creativity.



Photo: [instagram.com/jacubov](https://www.instagram.com/jacubov)

13. An hourglass filled with ocean microplastic

Brodie Neill has been using recycled plastic to produce his signature ocean terrazzo material since 2016. The material is produced using the same technology as conventional terrazzo, but instead of granite or marble chips, Brodie uses hundreds of tiny pieces of plastic set in epoxy, which become the coatings for his furniture collection.



Photo: brodieneill.com

Source (<https://trends.rbc.ru/trends/green/600b1cb49a794712f98e69b6>)

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