Atlanta, High Museum of Art.

Plastics
the material for the 21st century

Since the first plastic was invented a century or more ago, plastics have revolutionised the way we live. Whether we're communicating, travelling, playing, caring for each other's health or protecting the environment, there's no sphere of human activity that hasn't been significantly advanced by the use of this remarkable material. And today, scientists and technologists are continuously working at the forefront of knowledge, in fields as diverse as space exploration, nanotechnology and medicine, to find new ways plastics can benefit people. Their research means that many solutions, for most of us as yet unimaginable, will soon enter our everyday lives - all thanks to amazing plastics. No wonder plastics are set to be the material for the 21st century.

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Graz, Kunsthaus.
The acrylic glass facade houses a system of 930 fluorescent lamps which can be adjusted individually.

EuPC
EUROPEAN PLASTICS CONVERTERS

PlasticsEurope
Association of Plastics Manufacturers

Building and architecture

Plastics
The Material for the 21st Century

Plastics are amazing

Plastics play a vital part in our lives: at home, at work, in schools and hospitals. We play with them, we travel with them, we wear them.
And sometimes, if parts of our body don't work, doctors can even replace them with new ones - made of plastic. Plastics keep us safe, they make life more comfortable and fun, and they're surprisingly good for the environment.
They come in many different forms: harder than steel, softer than silk, any colour or shape...
It's why designers and inventors love them. Plastics are amazing. We often take them for granted, but life wouldn't be the same without them.

Berlin, Potsdamer Platz, Sony Center.

Architecture is "plastic"

In 1924, the Dutch artist and architect Theo van Doesburg declared that architecture is "plastic". By that he meant that architecture is all about shaping and moulding. The architect's task, he believed, was to shape every aspect of a building - function, mass, surface, time, space, light, colour, material... Performing that task was by no means easy. In those days, plastics - whose very name means "capable of being shaped" - hardly existed. But now, less than a century later, today's architects are making extensive use of plastics and turning Van Doesburg's vision of architecture into everyday reality.

New ideas and concepts

Over the past few decades, plastics have inspired architects to design buildings with remarkable new shapes and dimensions. With these new materials, they can express ideas and concepts that cannot be expressed using traditional materials. Nowadays, plastics can be found everywhere in buildings of all sorts, from skyscrapers and homes, to temporary accommodation, bridges, roads and public spaces. There, they perform a wide variety of functions, creating striking facades and interiors, strengthening concrete structures, providing reliable piping and insulation systems - and much more.

Plastics for sustainability

Thanks to plastics, buildings are more sustainable. As plastics are much lighter than traditional materials, transporting them to the site and using them there consumes much less fuel. Plastics, in many different forms, also allow architects to minimise energy consumption in buildings, through insulation, for instance. Because of their durability, plastic piping keeps water, electricity and gas supplies to buildings protected and secure, and they can add substantial reinforcement to concrete.

Barcelona, Torre Agbar.

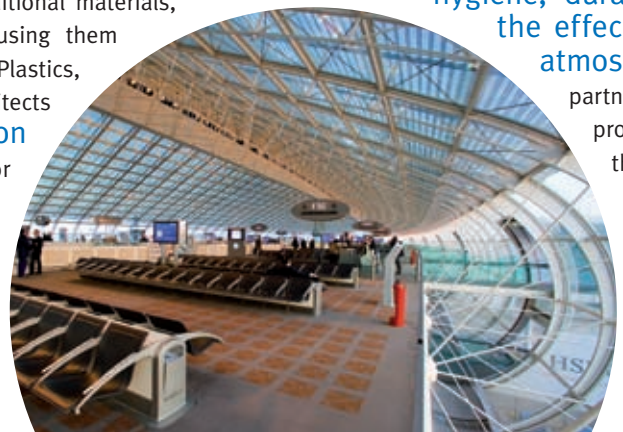
As they are less liable to be affected by the atmosphere, it is much easier to keep buildings with plastic facades, interiors and structures attractive and in good condition.

Adapting to change

But a building does not stay the same forever: the way it is used changes over time. Plastic elements of a building can be easily changed (in size, appearance or function) or even replaced.
And after a building's useful life has ended, its plastic parts can simply be dismantled and then reused, recycled or processed to yield heat energy.

Creating the buildings people need

Thanks to their lightness, cost-effectiveness, recyclability, low maintenance, strength, hygiene, durability and resistance to the effects of chemicals and the atmosphere, plastics form an ideal partner for architects as they work to provide people with the buildings they need in the 21st century.



Paris, Charles de Gaulle Terminal.