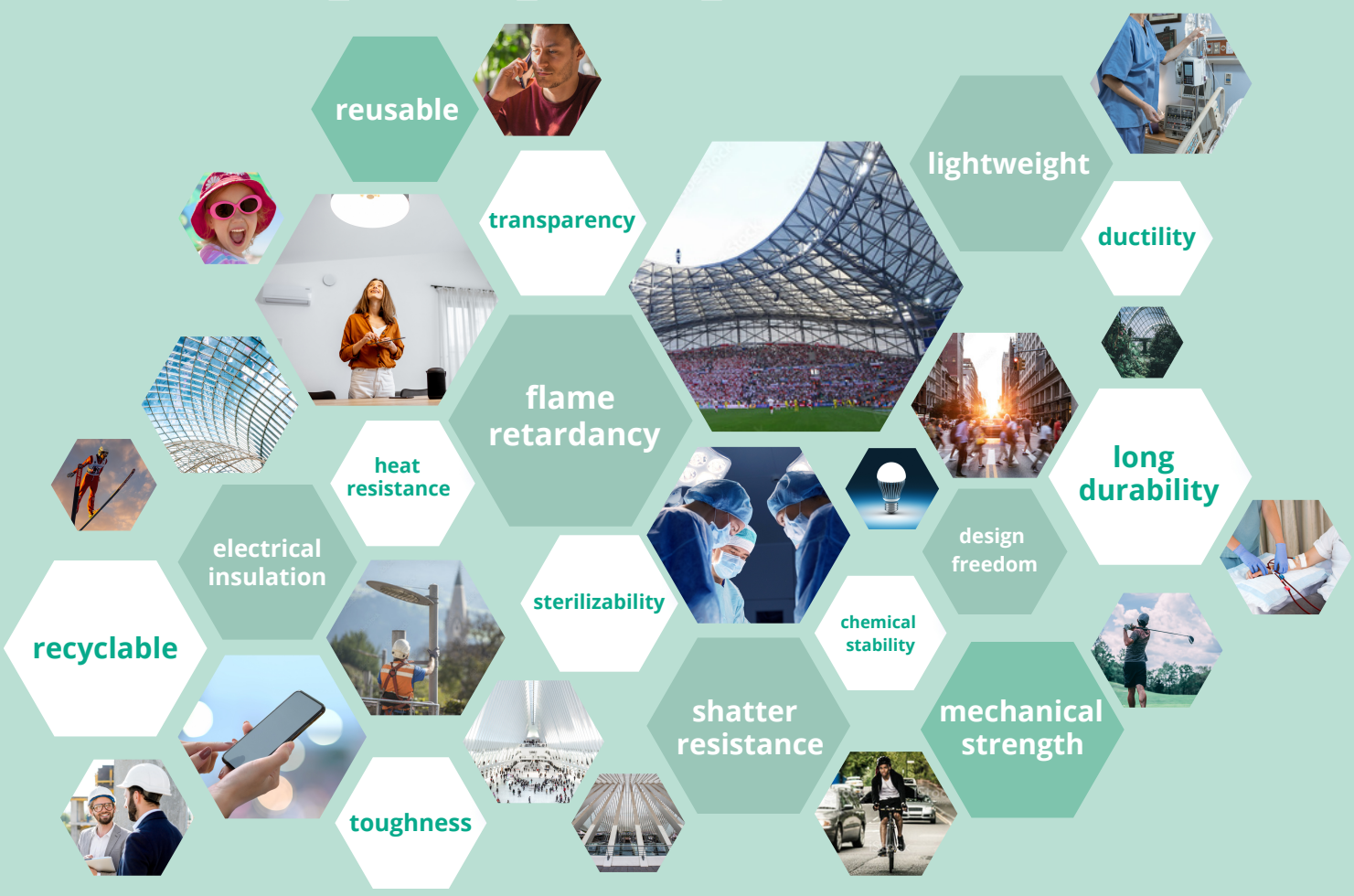
Polycarbonate in daily life

Plastics play a big role in everyday life. However, not all plastics are the same, nor are they used for the same products. The choice depends on the specific characteristics of each plastic and also on the price.

Polycarbonate is a high-performance engineering plastic with a unique combination of characteristics. It is because of its specific combination of properties, such as durability, robustness, transparency, lightweight, heat resistance and many more, why polycarbonate is selected for a broad number of very different applications - indoors and outdoors, in robust as well as very sensitive use conditions, from tiny to very sophisticated designs.

one material multiple properties



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LEDs

LEDs have changed the way of lighting streets, homes and workplaces in the 21st century. LEDs are highly energy efficient, as they convert electricity directly into light. Polycarbonate is used for the housing and internal parts of LEDs. Its outstanding transparency, in combination with it´s break resistance, high heat resistance, and inherent non-flammability, allows for LEDs characteristic brightness in spreading the light and for their energy efficiency.

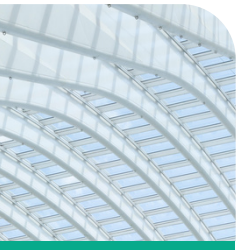
HEADLAMPS

As a result of critical aspects of road safety polycarbonate has become an industry standard for use in headlights in all kinds of vehicles. Polycarbonate is used as the outer shell and protects the source of light because it has an outstanding impact resistance, deflecting road debris or stones without breaking or shattering. This is specially important in order to protect the safety of pedestrians in case of an accident. Polycarbonate's transparency, light weight, formability and design freedom also allow to integrate rapidly evolving technology for electric vehicles and sensors.

MEDICAL

Polycarbonate is used in many life-saving medial applications, e.g. housing the filtering system that´s cleaning the blood in kidney failure (hemodialysis) or in structural elements of auto-injectors: Polycarbonante´s high transparency is critical for visual confirmation of proper functioning of the dialysis station. Its exceptional stability against chemical substances, its steam sterilisabiity, its robustness and durability makes recovery and reuse of polycarbonate also in medical applications an interesting material.

GLAZING



Transparent polycarbonate sheet allows natural light to enter buildings. Because polycarbonate is very light weight compared to other building material, less energy is needed for transport and installation, and boldly designed and large sizes are possible. As a highly break- and shatter-resistant material with practical inflammability polycarbonate filfills the critical fire safety standards and regulations regarding safety of buildings.

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