MISS LESS seats

des. Philippe Stark

Leader in the industrial production and distribution of plastic accessories and design items, Kartell has always focussed on, and been dedicated to, research in avant-garde technologies and production processes. Quality, reliability, safety and respect for the environment have always been the company's key values.

From its creation in 1949 to today, Kartell has designed an incredible range of products, the fruit of creativity and of partnerships with the world's greatest designers. Our products are made using top-quality plastics, most of which are recyclable and environmentally friendly; our production processes are optimized to avoid excessive consumption and waste that are harmful to the environment and resources.

In 1996, Kartell received **UNI EN ISO 9001** certification for its Corporate Quality Management System. In 2012, we were also awarded **UNI EN ISO 14001** certification for our efficient Environmental Management System.

These certifications are proof that Kartell applies a careful control system that assesses and verifies the appropriateness of its technology, industrialization, quality and environment, in order to reconcile its industrial processes with the end consumer's needs and expectations.

GREENGUARD
PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS
UL.COM/GG
UL 2818
GOLD

And, reflecting its concern for protecting the health of the end consumer, Kartell is set to receive Greenguard certification for its collections in 2014.
Greenguard was created in the United States in 2001 to develop a series of technical requirements to certify materials for indoor use. This certification attests to the quality of the air breathed in closed spaces furnished with Kartell products.

The parameters used are very strict, requiring that the furniture used and certificated respect very specific emission limits in order to protect consumers' health, with particular regard to children.

When buying a Greenguard certified item, customers can be sure they are purchasing an inspected and safe product that does not pollute.

Greenguard is required by many certification boards for green buildings (LEED; CHPS; ASHRAE; Green Globes, NAHB; IgCC, CONSIP) worldwide.

Kartell's concern for the environment is reflected in its use of top-quality plastics that are clean, certified, environmentally friendly and mostly recyclable, along with packaging solutions that avoid waste.

We take great care to guarantee recyclability throughout our production cycle, right from the earliest design stages.

Recyclability is one of the strong points of Kartell's products: at the end of their life, all of Kartell's products plastic components can be recycled again and again.
But is there an "end of life" for a Kartell product?

ACRYLONITRILE-BUTADIENE-STYRENE

Acrylonitrile-butadiene-styrene (ABS) polymers are a unique family of engineering plastics.
The name derives from the initials of the three monomers composing it:
- Acrylonitrile (A) provides thermal resistance to ageing
- Butadiene (B) helps to maintain its properties at low temperatures, tenacity and impact resistance
- Styrene (S) provides gloss, stiffness and ease of processing

By varying the proportions of these three components, we can produce a wide variety of types of ABS for a just-as-vast variety of uses: in the automobile sector, in office machinery, in electrical and electronic products, home appliances and, naturally, furnishings.

ABS resists high temperatures, chemicals and aging. It is also strong and impact resistant.

High, medium and low (matte) gloss finishes can be applied, and ABS polymers are easily coloured.
Depending on their type, ABS vary in their sensitivity to certain chemicals and solvents. For this reason, their resistance to stress cracking has to be assessed for each application.

ABS are not generally weather resistant.
If appropriate measures are not taken to protect the material, it can undergo colour variations and embrittlement.

POLYCARBONATE

The term “polycarbonate” (PC) refers to a thermoplastic polymer.
To produce an object using this material, the polycarbonate is melted and injected under high pressure into a mould to give it the desired form.

Two processes are generally used to produce polycarbonate items:

- Extrusion: in this process, the polymer is first heated, then injected under pressure into a die to give the product its final shape. Pipes, sheets and profiles are made in this way.
- Injection moulding: in this process, the polymer in granular form is heated then injected into a shaped and cool die, which gives it its shape and solidifies it. Many products in various sectors can be created using this process, which is the most commonly used.

The advantages of polycarbonate
Polycarbonate is a material with excellent properties:
- excellent mechanical, thermic and electrical properties
- highly fire and impact resistant, and very flexible
- easily recyclable and easy to work

These characteristics make this material suitable for a wide variety of applications: from automobiles to packaging, from electrical appliances to consumer goods.
Kartell has demonstrated the excellent versatility of polycarbonate in applications even in the furniture sector, and in this sense it is a pioneer in the sector.

UNI TECHNICAL STANDARDS

Reliability test results conducted and available

Reference technical standards	Test reference	Reached level
EN 15373:2007	Attachment A par. A.2	Maximum level: level 3°
EN 1728:2000	Static load on the back of the seat paragraph 6.2.1	Maximum level: level 3°
	Static load on the front edge of the seat paragraph 6.2.2	Maximum level: level 3°
	Fatigue strength of the seat/back paragraph 6.7	Maximum level: level 3°
	Ear and tear on the front part of the seat paragraph 6.8	Maximum level: level 3°
	Static load on front legs paragraph 6.12	Maximum level: level 3°
	Static load on side legs paragraph 6.13	Maximum level: level 3°
	Resistance of the seat to blows paragraph 6.15	Maximum level: level 3°
	Resistance of the back to blows paragraph 6.16	Maximum level: level 3°
EN 1022:2005	Stability	Conform

Level	Suggested use
1	Heavy domestic, use Light collective use
2	Collective use: public areas, waiting rooms, restaurants, offices
3	Heavy collective use: schools, prisons, hospitals

PRODUCT RECYCLABILITY AND REUSE

The very high quality of the materials used by Kartell for production gives its products a very long life. But what happens at the end of a Kartell product's life cycle?

The materials used to manufacture this product are 100% recyclable, based on generally applied criteria at the local level (recycling bins or recycling centres).
In this way, Kartell products can be reused to manufacture other objects. This transformation can potentially be repeated indefinitely.

Care
To care for your Kartell products, protecting their original characteristics, you just need to keep a few simple things in mind for each individual type of material.
Plastics
When cleaning plastic surfaces, use a damp, soft cloth with neutral liquid soap or cleanser, preferably diluted. Do not use ethyl alcohol or cleansers containing even the slightest amount of acetone, trichlorethylene, ammonia or solvents as these substances will permanently damage the plastic. In addition to the corrosive substances listed above, avoid abrasive substances, including powdered cleansers, abrasive creams and cleaning tools with coarse surfaces, such as steel wool or rough sponges.

Packaging
All of this product's packaging—cardboard, plastic wrap, paper—is 100% recyclable, based on generally applied criteria at the local level (recycling bins or recycling centres). This is the best way you can contribute to environmental sustainability: avoid waste and avoid "littering" the environment with excessive waste.

"QUALITY CONTROL" LABEL

Kartell uses various control systems in its production.
The red "QUALITY CONTROL" label found inside each box is your guarantee that the product was checked by a Quality Control inspector before being packaged.
The codes on the control label are used to trace essential data in the event there is a problem with the product.