Hollow Polycarbonate Sheets

Light weight, safety and versatility

The use of hollow polycarbonate sheets can vary in a wide range of projects, for internal and external uses, with enormous advantages over the majority of the materials, thanks to its physical and chemical properties.

The production process of hollow polycarbonate is a co-extrusion that adds to one of its surfaces a protective layer against UV rays coming from the sun, at temperatures up to 140^{o}C.

The light way and high mechanical resistance of polycarbonate offers great facility of handling, transportation and installation. Users are able to machine and cut the polycarbonate hollow sheets at the installation location, with electrical or hand saws, as well as cold bending the sheets. The extremely light weight of the material (due to the thin walls and hollow inside) allow the use of light and more economical structures, when compared to glass and other material.

Polycarbonates are safe on fire situations; polycarbonate is a self-extinguishing material that does not allow the fire to proceed. Its high resistance, durability and transparence allow the development of countless projects and uses in the civil construction industry, as windows, covertures, tunnels, greenhouses, domes, skylight, among many other.

Technical Information

Hollow Polycarbonate Properties

Description	Value
Light trnasmission	70% - 80%
UV protective layer	50um
Softening temperature	148°C
Continuous use temperature	- 40°C + 120°C
Elasticity modulus	2.400 Mpa (1mm/rai. ISO 527)
Tensile strength, elastic	63 Mpa (at yield 50 mm/rai. ISO 527)
Elastic elongation	6% Mpa (at yield 50mm/rai. ISO 527)
Tensile tension at rupture	> 50% Mpa (at break 50 mm/rai. ISO 527)
Impact resistance, Charpy 23° C	NB (ISO 179/leU)
Impact resistance, Charpy -30° C	NB (ISO 179/leU)
Impact resistance IZOD 23° C	80 KJ/m² (ISO 180/4A)
Impact resistance IZOD -30° C	20 KJ/m³ (ISO 180/4A)
Flammability classification	GB8624-1997 B1