

## Mar-Con® 551 Polycarbonate – Forming Grade Abrasion Resistant Plastic

### Description

**Mar-Con® 551 Polycarbonate - Forming Grade (FG)** is an abrasion resistant plastic sheet product designed for a variety of high performance end uses in which the sheet will be heat formed or bent into soft radius shapes. It is a premium, high optic grade, polycarbonate sheet, coated with SciCron's Mar-Con 551 advanced technology cross-linked coating. This coating has excellent resistance to a wide variety of chemicals and solvents and is considerably more abrasion resistant than the polycarbonate plastic substrate. This combination of properties provides enhanced resistance to hazing, abrasion, and marring of the sheet surfaces from cleaning, handling, and defacement efforts. **Mar-Con® 551 Polycarbonate - FG** also exhibits excellent impact resistance and flame spread properties. This product can be used in many more applications than would be practical for an uncoated polycarbonate sheet. Mar-Con 551 can also be applied to thin gauge materials without suffering from distortions caused by typical thermal curing coating processes.

### Applications

**Mar-Con® 551 Polycarbonate - FG** is designed to be used where there is concern about abrasion of the surfaces of the plastic sheet from handling and other moderate abuse. It is also designed for applications requiring improved splash and wipe down resistance to many common chemicals and solvents which would normally damage the polycarbonate sheet surfaces. The Mar-Con® 551 FG surface helps prevent such damage from short-term exposures to these materials. Typical applications for **Mar-Con® 551 Polycarbonate - FG** include formed fabricated items for interiors such as: equipment covers, display components, safety shields, and curved machine guards.

### Fabrication

**Mar-Con® 551 Polycarbonate - Forming Grade** is easily fabricated into flat and bent surface configurations using the same equipment employed with uncoated polycarbonate sheet products. *The product is designed to accommodate drape forming and heat bending, however, care must be taken to avoid applying too much heat to prevent damage to the abrasion resistant coating.* Soft radii shapes and bends can be achieved which are smooth, clear, and uniform, if recommended forming techniques are employed. Some distortion and loss of mar resistance in a bend area is normal. On tight bends, particularly in thicker materials, there may be some very fine haze lines in the bend area. When solvent welding, it is necessary to remove the coating mechanically to

achieve a good bond. Note: This product is not designed for vacuum formed or drawn configurations. For more information, refer to SciCron Technologies Technical Information Bulletin No. MP-02.

### Features and Benefits

- *Flexible, abrasion resistant, durable surface*  
The Forming Grade Mar-Con 551 surface, more abrasion resistant than the base plastic, reduces risk of damage to the sheet surfaces from frequent cleaning and handling.
- *Superior chemical and solvent resistance*  
Reduces risk of solvent or chemical damage to the sheet surfaces.
- *Excellent optical properties*  
High clarity, high gloss coating on a high optic substrate maintains optimum light transmission without distortion.
- *Advanced technology, uniform surface treatment*  
Provides enhanced abrasion and chemical resistance without changing the appearance of the polycarbonate surfaces.
- *Graffiti resistance*  
Easy to clean hydrophobic surface
- *Superior impact resistance*  
Provides exceptional shatter resistance for safety.
- *Superior flame spread properties*  
Provides additional protection in a fire.
- *Superior forming and bending properties*  
Results in optimum heat forming during part fabrication.

### Cleaning

The Forming Grade Mar-Con 551 coated surface can be cleaned with a variety of common cleaners (see reverse side for specific recommendations). Care should be taken to avoid the use of any cleaner or cleaning solution which contains an abrasive. In addition, all wipes, sponges, and drying towels should be clean and free of any grit which could damage the coated surface.

### Availability

**Mar-Con® 551 Polycarbonate - Forming Grade** is available in clear, black opaque, and transparent gray and bronze tints. Other colors may be available upon special request.

### Standard Dimensions

Thickness: 3mm (1/8"), 4.5mm (3/16"), 6mm (1/4"), 9mm (3/8"), 12mm (1/2") plus films 10-90 mils  
Standard Sheet Size: 48" x 96"  
Other sizes and thicknesses available upon request.

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