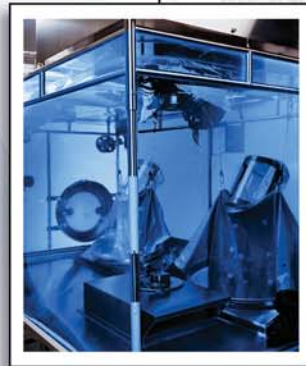
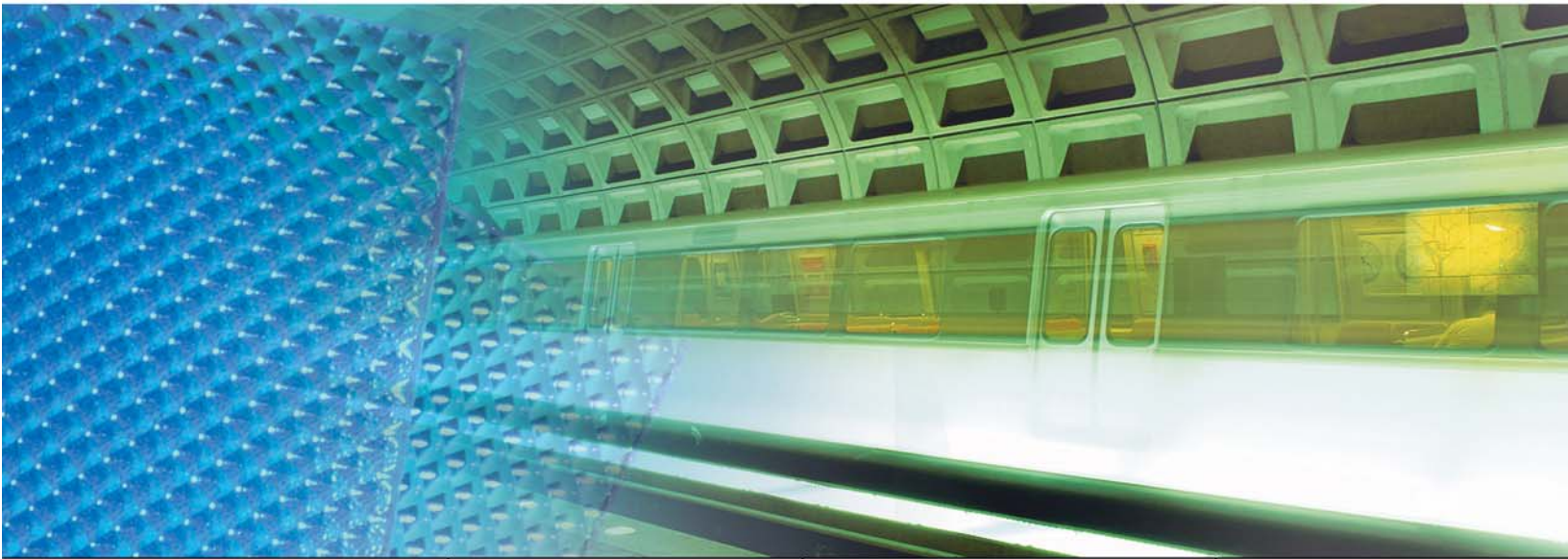


# MAKROLON®

P O L Y C A R B O N A T E      S H E E T



...Clearly the Right Choice  
Industrial Products

Sheffield Plastics  
A Bayer MaterialScience LLC Business

# None Tougher—None Clearer MAKROLON® Polycarbonate Sheet

...Clearly the Right Choice

## “Made with MAK” for Quality and Excellence

Sheffield Plastics is a recognized global leader in the production of extruded polycarbonate sheet. Produced from Bayer Corporation's MAKROLON Polycarbonate resins, MAKROLON Polycarbonate Sheet is known throughout the world for its quality in both clarity and performance values.

In addition to supplying quality products, leading technology, and industry leading technical support, Sheffield Plastics takes pride in having the highest rated distribution network in the industry. The Sheffield Plastics team is comprised of our local distributors backed by Sheffield manufacturing and product support personnel.

This Industrial Products Guide has been developed to help designers, engineers, and anyone working with industrial plastic products to select the right MAKROLON Polycarbonate Sheet product for the application. When your application requires additional assistance, please contact our team of dedicated professionals who are always ready to assist you further in your product selection process.



## Industrial Product Offering

### MAKROLON® AR

Offers UV resistance, glass-like surface hardness, high impact strength, and excellent chemical resistance, making it an outstanding choice for flat, noncurved machine guards.

### MAKROLON® FD

Non-UV stabilized polycarbonate sheet complies with FDA (21 CFR 177.1580) and NSF Standard 51 requirements. Close gauge tolerance control combined with high impact strength and heat resistance makes it ideally suited for applications in the medical and food equipment industries.

### MAKROLON® FI

Flame inhibiting polycarbonate sheet formulated for use in electronic devices or other applications requiring increased flame resistance offers a UL 94 V0 rating in gauges greater than 1.524mm.

### MAKROLON® GP

This staple product of the Industrial Product Line is UV-stabilized and incorporates both economy and high performance in every sheet. One attribute that sets it apart from the competition is the UL 94 V0 rating on gauges 5.588mm and greater, making it cost effective in a wide range of industrial and design applications.

### MAKROLON® MG

Machine grade polycarbonate engineering plate features extremely high impact strength, outstanding dimensional stability, and the lowest internal stress and inclusion levels when compared to other products in its class. The lower internal stress and reduced inclusion levels save time and money by reducing your fabrication process. MAKROLON MG is an excellent material for prototyping parts before injection molding.

### MAKROLON® OP

Clear, polished surface, UV-stabilized polycarbonate sheet provides high performance and excellent optical clarity for premium visual applications. It meets or exceeds requirements for products in its class.

### MAKROLON® GP P12

Prismatic pattern polycarbonate sheet is UV-stabilized and UL 94 V2 rated in gauges 3.175mm and greater. The prismatic pattern offers superb diffusion and hiding power, along with a reflective index of 1.586 (ASTM D542).

### MAKROLON® SL

Enhanced UV resistance polycarbonate sheet offers exceptional weatherability. Superior impact strength and formability makes this product an ideal choice for exterior factory/plant glazing; guards used in outdoor equipment; or other applications requiring increased weatherability and UV resistance.

### MAKROLON® TG

Features leading edge, clear surface, hard-coat technology for enhanced abrasion and UV resistance. Formulated to meet stringent Federal Railroad Administration requirements for type I and II ballistic and impact performance criteria for side facing and resurfacing windows, it is transparent, optically clear, and virtually unbreakable.

### MAKROLON® WG

Offers extremely high impact strength, high modulus of elasticity, and outstanding dimensional stability.



The Application Selector Guide covers some of the more common applications. If you have questions regarding an application not listed, please contact your local Sheffield Plastics Authorized Distributor or your Sheffield Plastics representative. A listing of local distributors can be found on our web site at [www.sheffieldplastics.com](http://www.sheffieldplastics.com), along with a listing of our District Managers.



## APPLICATION SELECTOR GUIDE

Application Description	AR <sup>1</sup>	FD	FI	GP	MG	OP	P12	SL
Container, Doors & See-Through Walls	✓	✓	✓	✓		✓		✓
Covers, Dust	✓	✓	✓	✓		✓		✓
Doors, Freight	✓	✓	✓	✓		✓		✓
Doors, Electrical Enclosures	✓		✓	✓		✓		✓
Electrical Parts/Components	✓		✓	✓	✓	✓	✓	✓
Fabricated Parts, Misc.; Not Curved or Bent	✓	✓	✓	✓	✓	✓	✓	✓
Fabricated Parts, Misc.; Curved or Bent		✓	✓	✓		✓	✓	✓
Guards, Machine	✓	✓	✓	✓		✓		✓
Glazing, Interior Plant	✓			✓		✓		✓
Glazing, Exterior Plant	✓							✓
Lighting Panels/Components							✓	
Medical Parts/Components		✓		✓	✓ <sup>2</sup>	✓		
Vacuum Formed or Thermoformed Parts		✓	✓	✓		✓	✓	✓

1: Flat Application Only.

2: This material can be custom ordered meeting FDA requirements.

Machine Guards are an important part of any machine or work environment where personal safety must be considered. MAKROLON® polycarbonate sheets offer a multitude of performance enhancements that are sure to fit any Machine Guard design or application requirements.

Please use the following Machine Guard Selector Guide as a reference tool to select the appropriate MAKROLON® product to fit your design or application. If you have any additional questions, call your local Sheffield Plastics authorized distributor or your Sheffield Plastics representative for any additional support with your design or application ideas.

## MACHINE GUARD SELECTOR GUIDE

Product	Impact	Chemical	Abrasion	Flame	UV	Optics	FDA/NSF
AR	✓	✓	✓		✓	✓	
FD	✓					✓	✓
FI	✓			✓			
GP	✓					✓	
OP	✓					✓	
SL	✓				✓	✓	
WG	✓					✓	✓*

\* WG can be run with FDA/NSF resin by special order.

**MAKROLON®**  
**Polycarbonate Sheet is:**  
**“Clearly the Right Choice”**

**Disclaimer**

The manner in which you use and the purpose to which you put and utilize our products, technical assistance, and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance, and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee, and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.

***For Additional Information Please Contact...***

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