



**Makrolon®**  
Polycarbonate Sheet  
Products for Face Shields

# Makrolon® IR



**Shield yourself with consistency, reliability, high optical quality and safety.**

A breakthrough technology that enables a truly consistent IR grade of polycarbonate sheet safety.

Bayer MaterialScience has a long history of supplying quality products to the face shield industry. Continued commitment to research and product development has led to Makrolon® IR. The innovative IR blocking technology exhibits higher temperature stability, allowing for formulation into extrusion grade polycarbonate. This material science breakthrough avoids the thermal stability issues associated with ordinary IR absorbing dyes. The result is a product that consistently meets the light transmission specification requirements – with the high quality optical performance product that you expect from Bayer.



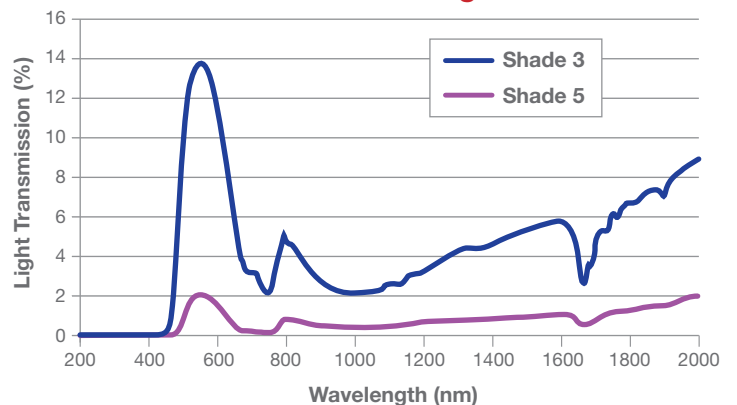
## Meeting Shade 3 and Shade 5 standards for maximum safety.

The high temperatures of flame welding and cutting emit a range of visible, UV and IR light that can damage your eyes when that light is too bright. A green tint alone in any material does not indicate compliance. Bayer MaterialScience recommends only Makrolon® IR where Shade 3 and Shade 5 standards apply.

## Superior impact performance for maximum peace of mind.

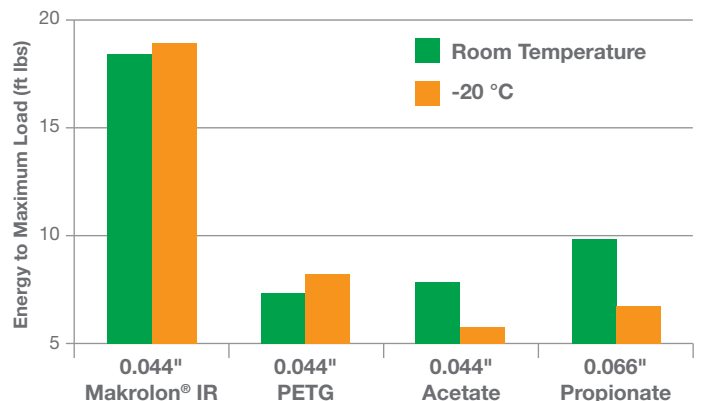
The high molecular weight of Makrolon® IR extrusion grade polycarbonate yields high impact strength and high toughness at a wide temperature range. Makrolon® IR polycarbonate also meets high mass, high velocity and needle penetration requirements in standard face shield designs.

### ANSI Z87.1 Testing Results



Shade 3 and Shade 5 of Makrolon® IR polycarbonate meet the ANSI Z87.1, EN 169, and CSA Z94.3 light transmission requirements for flame welding applications.

### Instrumented Impact, ASTM D3763



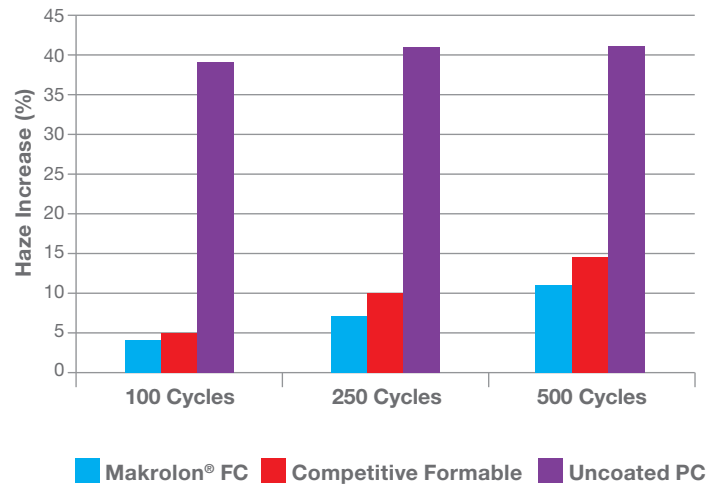
# Extend your face shield offerings with Makrolon® polycarbonate technologies.

## Makrolon® FC

Abrasion resistance for your face shield.

Makrolon® FC adds a formidable abrasion resistant coating to prolong face shield life. Compared to an uncoated sheet, it is far more resistant to marring from cleaning, abrasion from grit, and grinding debris. And, unlike some hard coated materials, Makrolon® FC can be formed to typical face shield curvatures.

Taber Abrasion, ASTM D1044



## Makrolon® OP

The optical performance that increases job performance.

Makrolon® OP has consistently lower distortion and fewer optical defects compared to general purpose polycarbonate sheet. High visual quality combined with the outstanding impact resistance of polycarbonate makes it an excellent choice for your face shield applications.



For complete information on Makrolon® face shield products, call 800.254.1707 or visit our website [www.sheffieldplastics.com](http://www.sheffieldplastics.com)

- Code compliance listings
- Product information
- Fabrication and forming guide

# Bayer MaterialScience



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Bayer MaterialScience is one of the leading manufacturers of high-quality polycarbonate products for a global marketplace. Behind the technologically sophisticated solutions you'll find the expertise of the global Bayer network, which specializes in the fields of health, nutrition and high-quality materials. Customer focus, innovation and environmental protection are objectives of equal importance in our corporate policy.



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