



# Discover Clear Directions

High-Performance Films  
for Traffic Control Materials

**POLYVANTIS**



## POLYVANTIS Built on Experience, Driven by Innovation

With decades of expertise in acrylic and polycarbonate chemistry and in film engineering, POLYVANTIS delivers reliable products and services on a global scale. Cleanroom manufacturing, in-house customization, and tailored formats – from thickness and lamination to precision cutting – put POLYVANTIS in a unique position to support customers from prototype to commercialization.

## High-Performance Films Long-Lasting Visibility, Color Accuracy

Traffic signs and road-safety devices need to maintain long-lasting visibility, color accuracy, and reflective performance even under harsh outdoor conditions. Environmental influences such as UV radiation, weather fluctuations, humidity, pollution, and mechanical stress can degrade sign surfaces, leading to yellowing, fading, or delamination – and ultimately compromising road safety.

POLYVANTIS addresses these requirements with two complementary premium solutions: PLEXIGLAS® PMMA Films and LEXAN™ PC Films for traffic control signage as:

- Permanent road signs
- Highway and motorway signage
- Temporary signage for construction zones
- Warning and hazard signs for traffic and parking safety
- Reflective signs on various vehicle types
- Digitally printed signs requiring protective overlays

# PLEXIGLAS® PMMA Films

## Optical Clarity, Color Brilliance, Weather Resistance

In the reflective materials industry, a robust and highly durable top layer is just as important as what is underneath. This layer must reliably protect the delicate reflective structures beneath it, preventing damage during long-term outdoor use.

PLEXIGLAS® films offer PMMA-based solutions specifically developed for traffic control material, combining excellent optical properties with proven long-term UV and weather resistance\*.

### Benefits:

- Outstanding optical clarity and color brilliance
- Superior UV and weather resistance extends service life
- Compatible with reflective materials made of PC, PVC and PET substrates
- Long-lasting

In addition to the clear, transparent grades for protective overlays on reflective materials, PLEXIGLAS® offers a variety of transparent colors aligned with global standards (EN 12899-1, DIN 6171-1, ASTM D4956, GB/T 18833, etc.) that provide highly consistent color and weathering performance across all retroreflective traffic signs and safety installations.



Colors							
Transparent							
Clear	Yellow	Orange	Red	Blue	Green	Brown	Black
OF014	1F004	2F005	3F005	5F008	6F004	8F003	9F002
OF016	1F006	2F006		5F011	6F006		
OF072							
OF096							
OF097							

# LEXAN™ PC Films

## Impact Resistance, Maximum Visibility

LEXAN™ polycarbonate films are specifically engineered for high-performance retroreflective road signs in combination with PLEXIGLAS® PMMA films. LEXAN™ PC Films feature outstanding printability and enable microprismatic embossing, delivering significant advantages in processing and laminating with PLEXIGLAS® PMMA films.

### Benefits:

- Excellent impact resistance and matte surface for excellent processability
- High retroreflectivity
- Precise replication of microprismatic structures
- Appropriate embossing temperature
- Outstanding release performance at high temperature

LEXAN™ Films meet international standards for Class 1 and Class 2 retroreflective signage, available as colorless film and in fluorescent colors.



Colors			
Reflective			
Clear	Yellow	Orange	Red
TP801	TP802-	TP802-	TP802-
TP803	YW5G	OR9G	RD7G017T
TP603			
6O60E			
TP8A1			
TP3A1			

### PLEXIGLAS® PMMA and LEXAN™ PC films

are both compatible with standard printing technologies – including digital and gravure – without requiring additional surface treatment, and provide exceptional established designs with proven performance in visibility and safety in both day and night conditions. Both film grades are easy to cut or die-cut, laminate, and process in roll-to-roll operations.

\* UV and weather resistance for all clear and colored PLEXIGLAS® PMMA TCM film ranges from 7 to 20 years, depending on the reflective material substrate and the sign design.



## Our Service and Global Offering

POLYVANTIS is committed to its customers around the world with a portfolio of film and sheet materials, application support and worldwide services.

We are a world-leading multi-material player for semi-finished plastic products. Our customers from a multitude of different industries can choose from an extensive range of high-quality products provided by a single source, including leading brands such as LEXAN™ film and sheet from polycarbonate resins and PLEXIGLAS® and ACRYLITE® for PMMA semi-finished products.

Our name stands for the variety of products we offer, and our quest to secure progress in polymers and related materials. POLYVANTIS offers innovative materials for a wide range of requirements.

The portfolio ranges from solid plastic sheets and films for a multitude of areas of application, through specialty products with custom properties, all the way up to the matching adhesives and auxiliaries.

The POLYVANTIS umbrella unites strong plastics brands. With 15 production sites across the United States, Europe, Asia and Africa, we offer innovative products and solutions for segments such as building and construction, transportation, aircraft and railway interiors, electrical engineering and electronics, automotive manufacturing and the home and garden sectors.



# POLYVANTIS Locations



**Please feel free to contact our experts worldwide with any questions you may have.**

**POLYVANTIS**  
[www.polyvantis.com](http://www.polyvantis.com)

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Polycarbonate products are sold globally under the trademark LEXAN™ Film & Sheet, owned by SABIC or its subsidiaries or affiliates.

Certified to DIN EN ISO 9001 (Quality) and DIN EN ISO 14001 (Environment).

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