

# PLASKOLITE

**SIGN & GRAPHICS**

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SOLUTIONS GUIDE

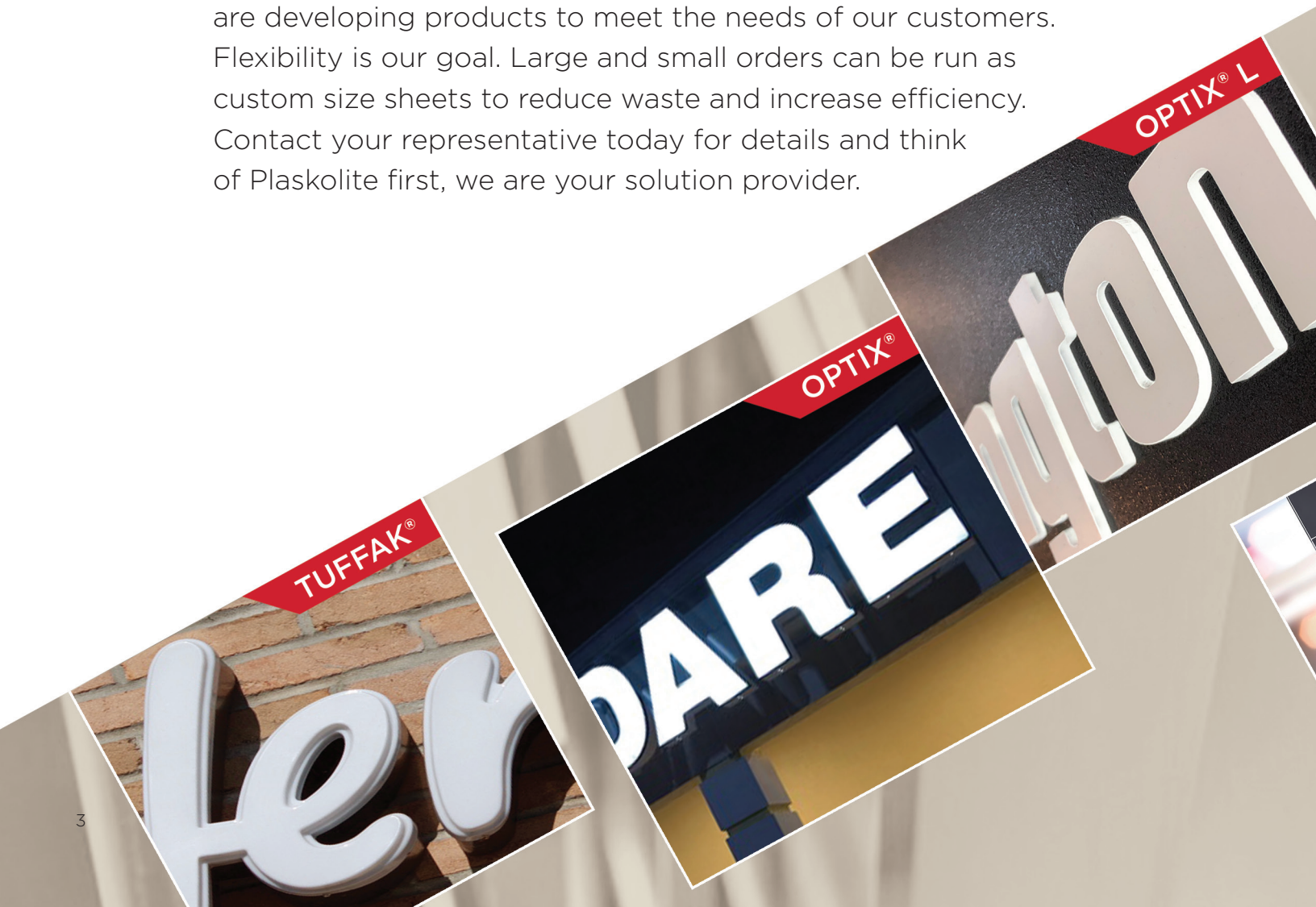


# PLASKOLITE

is North America's market leader in sheet and reels for the sign and graphics industry. As the manufacturer of **OPTIX**<sup>®</sup> acrylic, **TUFFAK**<sup>®</sup> polycarbonate, **OPTIX**<sup>®</sup> L and **VIVAK**<sup>®</sup> PETG sheet products, Plaskolite has the material solution for your branding needs. Working with our team of experts, specifications to enhance your brand is a snap.

The dedicated team at Plaskolite are here to educate your staff on which sheet product we produce is ideal for your project. With training programs, we can support your team on how to work with **OPTIX**, **OPTIX L**, **TUFFAK** and **VIVAK** sheets.

Plaskolite's ongoing commitment to the sign and graphics industry means our team never stops working to ensure we are developing products to meet the needs of our customers. Flexibility is our goal. Large and small orders can be run as custom size sheets to reduce waste and increase efficiency. Contact your representative today for details and think of Plaskolite first, we are your solution provider.



# OUR SIGN EXPERTISE

Consult with our experts in selecting the right sheet product for any application and installation.

## DISPLAY & GRAPHICS



## EXTERIOR



## INTERIOR



## VIVAK®

BLACK  
FRIDAY

SALE  
50%  
OFF

# EXTERIOR

# Signs & Graphics

FEATURED SOLUTION **OPTIX<sup>®</sup>-LD MAX**  
2406 WHITE



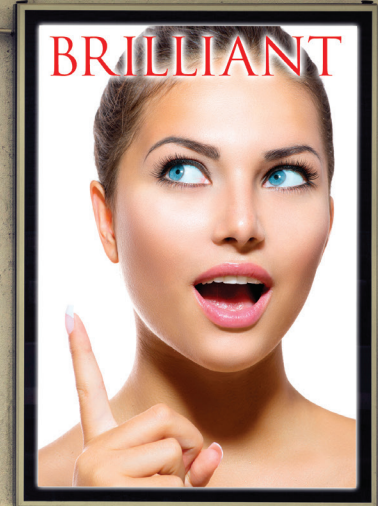
**White 7328**

34% Light Transmission  
@ 0.118"



**White 2447**

57% Light Transmission  
@ 0.118"



**Optix LD MAX 2406 White**

68% Light Transmission  
@ 0.118"

**BESIDES THE INDUSTRY'S BRIGHTEST WHITE, THE LD LINE SHINES IN COLORFUL OPTIX ACRYLIC AND TUFFAK POLYCARBONATE\***

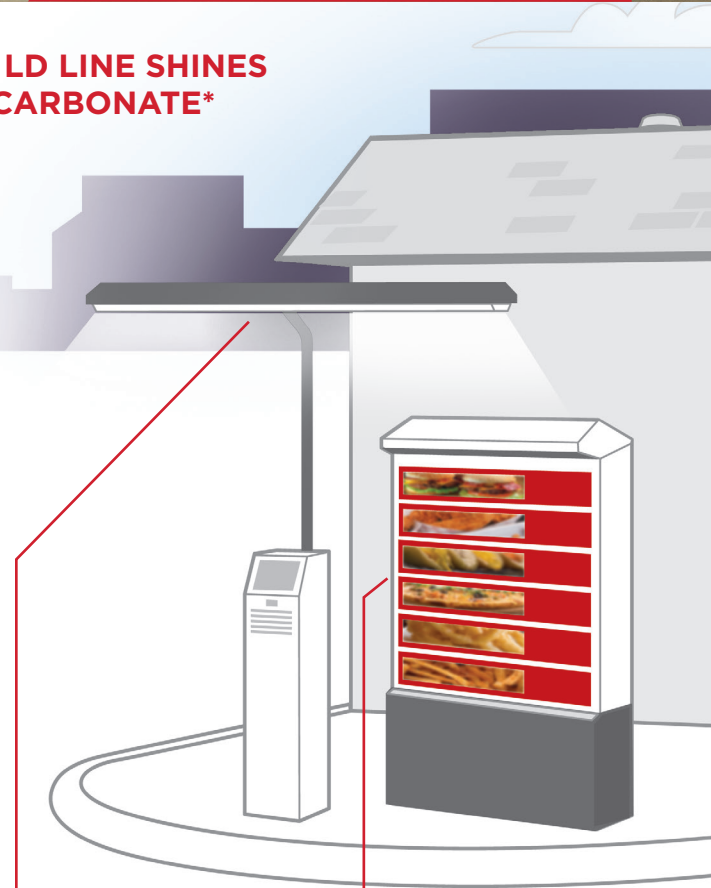
## OPTIX LD acrylic sheet

- » Brilliant colors
- » For use with decorative vinyl
- » Shallow cans for channel letters
- » Flat and formed sign faces
- » Sign cabinets
- » High light output
- » Dramatic illumination
- » Reduction of light sources
- » Enhanced digital printing
- » Translucent and dual color perforated films
- » High UV resistance
- » Available in SG

## TUFFAK<sup>®</sup> LD polycarbonate sheet

- » Channel letters
- » Sign cabinets
- » Virtually unbreakable
- » Weather resistant
- » Thinner deep draw areas retain strength and light diffusion properties
- » Meets UL 870 standard for use in electric signs
- » UL 94 V-2 flammability rating in 0.094" - 0.177"
- » UL 94 V-0 flammability rating in 0.236"

\*See page 13 for available colors and sizes



**TUFFAK SL, LD, OPTIX SG**

**TUFFAK AR1, SL, SL Matte, OPTIX SG05**



### TUFFAK® ARI

- » Hardest hard coat technology
  - Abrasion resistant
  - Chemical resistant
- » Second surface digitally printed
- » Flat applications only



### OPTIX® SG / DURAPLEX

- » Outstanding vacuum definition
- » Optically clear
- » Three levels of impact strength; SG, SG05, SG10
- » Thermoformable
- » Easy to fabricate



### TUFFAK SL

- » Enhanced UV resistance
- » Thermoformable
- » Virtually unbreakable
- » Wide temperature range
- » Thinner deep draw areas retain strength
- » Available in industry standard colors
- » Sheet and reels



### OPTIX BW continuous cast

- » Day / Night
- » Black sign in daylight
- » Illuminates white or colored depending on light source
- » Eliminates need for perforated vinyl
- » Smooth gloss finish
- » Easy to fabricate
- » Interior / exterior



TUFFAK SL, LD,  
OPTIX SG

TUFFAK LD, SL, SL Matte,  
OPTIX LD, SG

TUFFAK LD,  
OPTIX LD, SG, BW,  
OPTIX Heavy Gauge

TUFFAK SL, LD,  
OPTIX SG

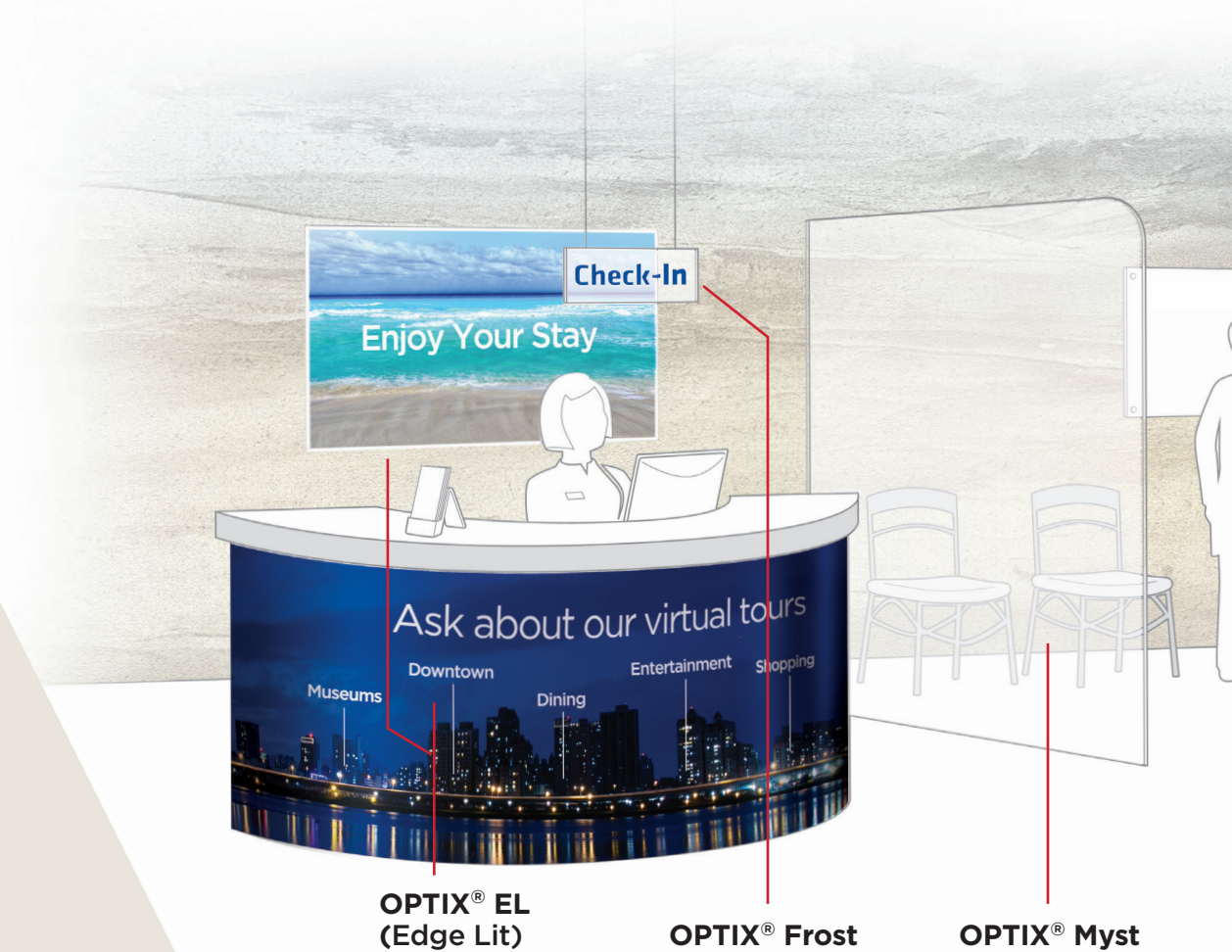
# INTERIOR

# Signs & Graphics

FEATURED SOLUTION **OPTIX<sup>®</sup> DA**  
DIGITAL ACRYLIC



Produced with a specially formulated acrylic polymer that promotes optimal adhesion of UV curing inks without the need for an adhesion promoter prior to ink application



**OPTIX<sup>®</sup> EL**  
(Edge Lit)

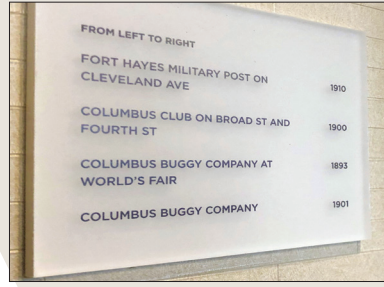
**OPTIX<sup>®</sup> Frost**

**OPTIX<sup>®</sup> Myst**



### OPTIX MYST

- » Internal frost
- » Will not heat or form out
- » Superior craze resistance
- » Soft light diffusion
- » Gloss finish



### OPTIX 95

- » Matte finish one side
- » Second surface decoration
- » Reduction in surface reflection
- » Custom colors available
- » Additional matte finishes



### OPTIX Frost

- » Translucent
- » Textured two sides
- » Easy to fabricate without significant loss of frost appearance
- » Line bends
- » Interior and Exterior



### OPTIX E-DA

- » Erasable direct-to-print sheet
- » Abrasion resistant
- » Functional message board
- » Frameless installations



### OPTIX L & EL

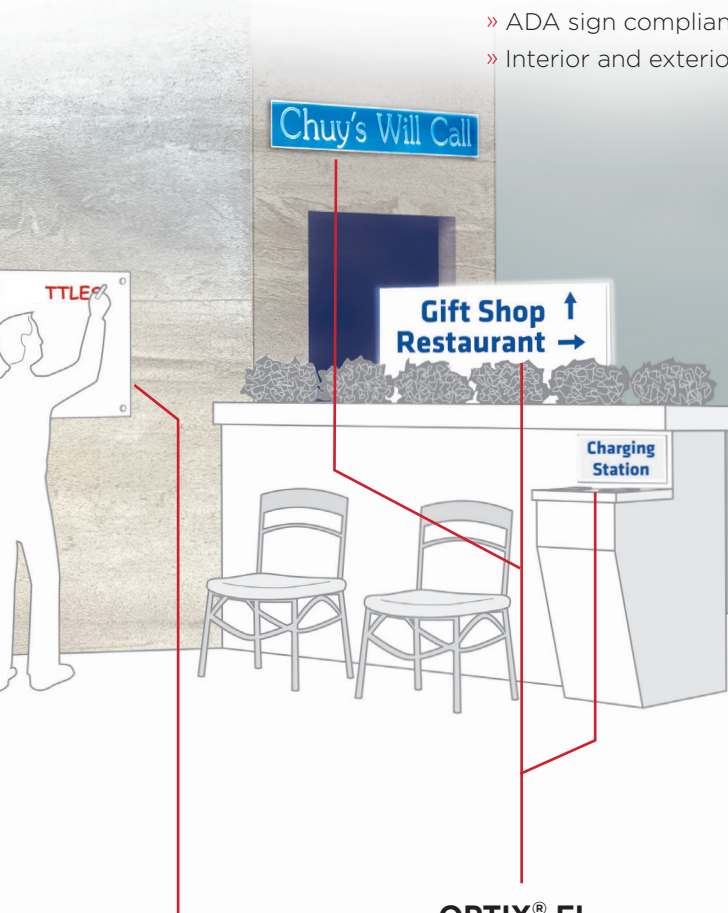
- » Bright and even edge illumination
- » Continuous Cast
- » Single or double-sided sign
- » Ideal for low profile signage for interiors/wayfinding
- » ADA sign compliant
- » Interior and exterior



### OPTIX® L BLOCK cell cast acrylic\*

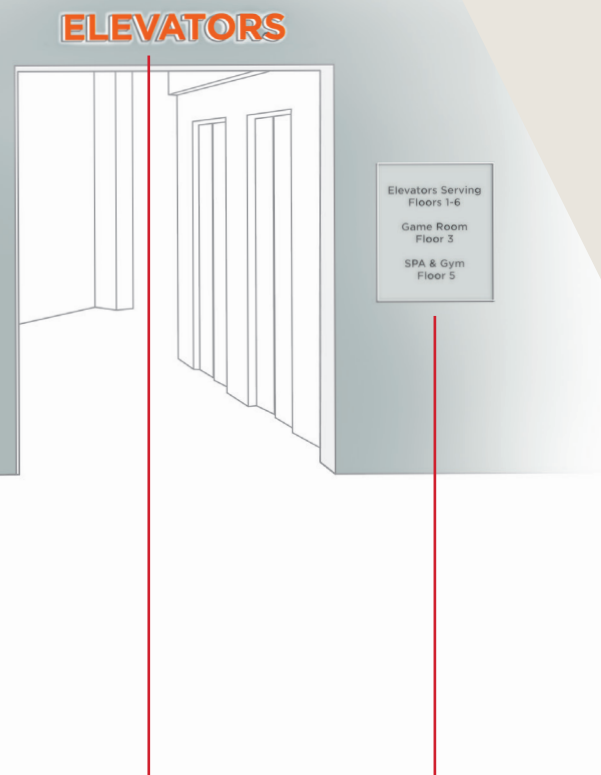
- » Even illumination and diffusion for trimless letters
- » Alternative to traditional channel letters
- » Thick gauge acrylic that allow for routing and embedding LEDs
- » White or colored LEDs
- » 3-D signs

\*Product not manufactured by Plaskolite



OPTIX® E-DA

OPTIX® EL (Edge Lit)



OPTIX® L BLOCK

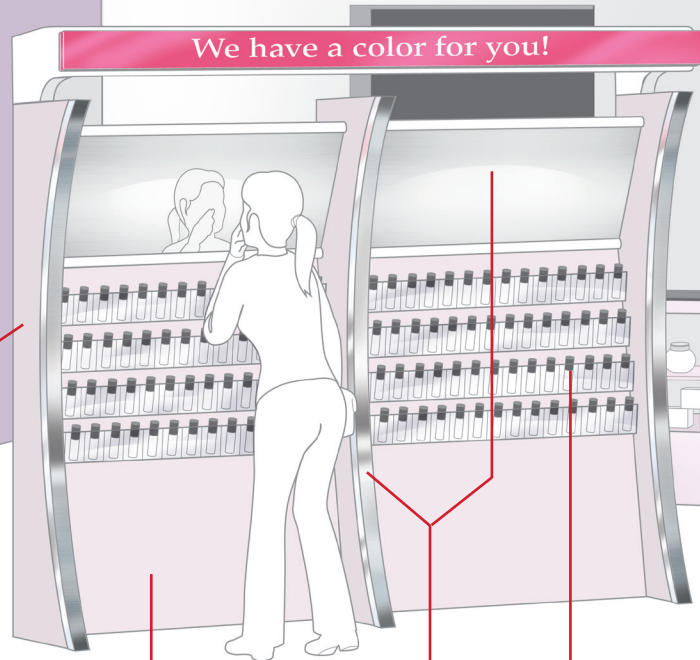
OPTIX® 95

# DISPLAY Graphics & Displays

FEATURED SOLUTION **OPTIX** L-SERIES  
CONTINUOUS CAST



- » Exceptional optical clarity and edge finish
- » Superior chemical and craze resistance
- » Better thickness tolerance compared to cell cast sheet



OPTIX® DA

OPTIX® 95

OPTIX® 99

FABBACK®

VIVAK®





### OPTIX® Thick

- » Crystal Clear
- » Impact resistant
- » Custom colors available



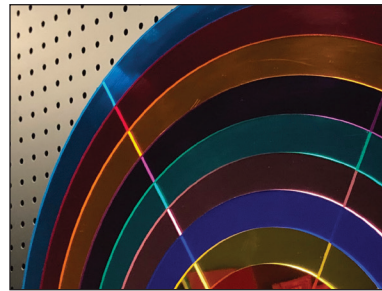
### VIVAK® PETG

- » Interior use
- » Durable
- » Flexible
- » Deep draws and complex die cuts
- » Easily decorated: painting silkscreen or hot stamp
- » Available in sheets only



### OPTIX 99

- » Ultra light matte finish
- » Glare reduction
- » Half the weight of glass
- » Shatter resistant
- » Translucent
- » Interior and Exterior



### FABBACK®

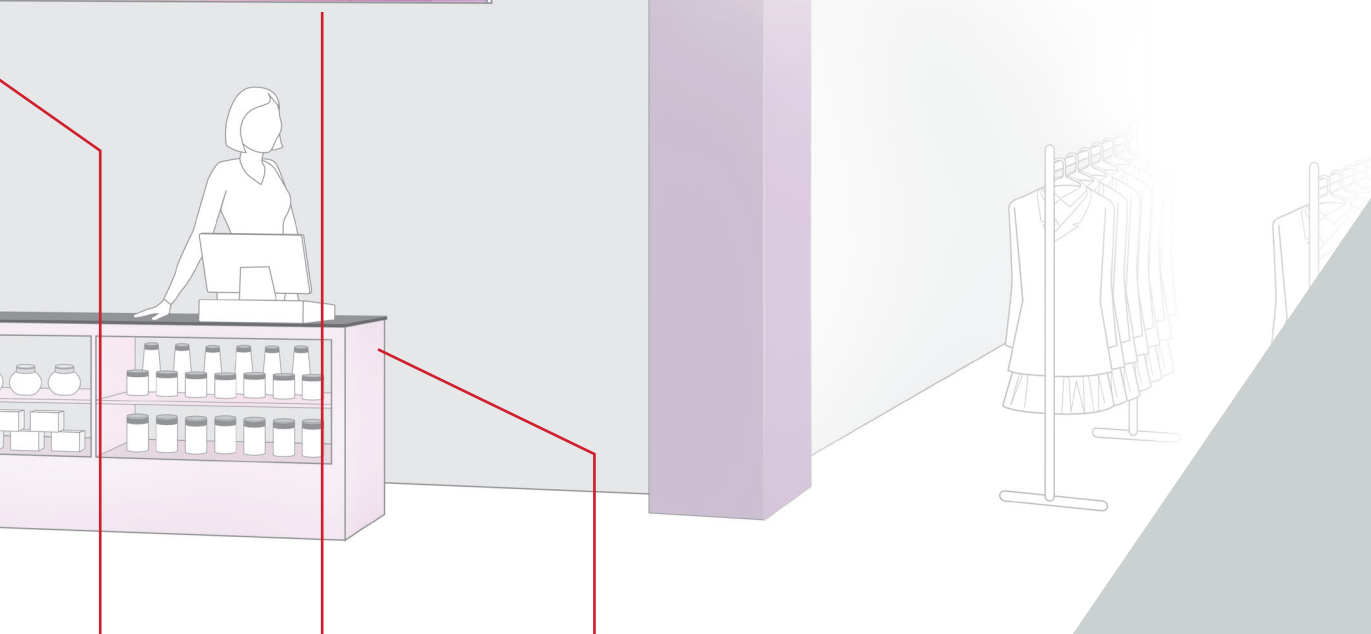
- » Over 20 colors
- » Clear or see-through
- » Ease of fabrication
- » Wide range of standard gauges
- » Flat sheet only



### OPTIX DA & NG-DA

- » Eliminate vinyl decoration
- » Eliminate adhesion promoters
- » Strong ink adhesion **allowing graphics to be printed to the edge**
- » Certified with all leading digital flatbed printers
- » Available in clear, white, custom colors
- » Available in non-glare finish - **OPTIX NG-DA**

## COSMETICS



OPTIX®,  
OPTIX® LD

OPTIX® Thick  
OPTIX® LD

FABBACK®  
OPTIX®, OPTIX® L  
OPTIX® EL

# PRODUCT SELECTION GUIDE

PRODUCT / ATTRIBUTE / TYPE - MATERIAL										
		Extruded	Continuous Cast	Cell Cast Acrylic	PC	PETG	Impact Resistant	Durability	Patterns	Abrasion Resistant
OPTIX LD MAX 2406	Light Diffusing	•								
TUFFAK LD		•			•		Superior Impact Strength	✓		
OPTIX LD		•								
OPTIX L-BLOCK					•				✓	
OPTIX DA	Digital Printing	•								
OPTIX NG-DA		•							✓	
OPTIX E-DA		•								✓
VIVAK		•					•	Superior Impact Strength		
TUFFAK AR1		•				•		Superior Impact Strength	✓	
TUFFAK NR	Non-Reflective	•			•		Superior Impact Strength	✓	✓	
TUFFAK NR-C	Non-Reflective Coated	•			•		Superior Impact Strength	✓	✓	✓
OPTIX EL	Edge Lit		•							
OPTIX L	Standard		•							
OPTIX L BW	Back Lit		•							
OPTIX SG, SG05, SG10	Sign Grade	•						✓	✓	
TUFFAK SL		•			•		Superior Impact Strength	✓		
OPTIX Frost (Infused)	Translucent	•							✓	
OPTIX 95 (Matte finish)		•							✓	
TUFFAK SL Matte		•				•		Superior Impact Strength	✓	✓
OPTIX L Myst (infused)				•					✓	✓

## FEATURES AND BENEFITS

High Clarity	Interior	Exterior	Flexibility	Cold Forming	Digital Print	Thermoformable	Superior Diffusion	UV Enhanced	Reels	Chemical Resistant
	✓	✓	✓		✓	✓	✓	✓	✓	
	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	✓	✓				✓	✓	✓		
	✓	✓	✓	✓	✓	✓	✓	✓		✓
✓	✓	NA			✓					
	✓	NA			✓					
✓	✓	NA			✓					✓
✓	✓	NA	✓	✓	✓	✓				
✓	✓	✓			✓			✓		✓
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	✓	✓	✓	✓	✓	✓		✓	✓	
	✓	✓				✓				
	✓	NA				✓				
	✓	✓	✓	✓	✓	✓		✓	✓	
	✓	✓	✓	✓	✓	✓		✓		✓

# TYPICAL PROPERTIES

Property	Test Method	Units	Values		
			OPTIX L	OPTIX LD / SG	TUFFAK SL
<b>PHYSICAL</b>					
Specific Gravity	ASTM D792	-	1.19	1.19	1.2
Optical Refractive Index	ASTM D542	-	1.49	1.49	1.586
Light Transmission - Clear	ASTM D1003	%	92	>90	86
Light Transmission - Haze	ASTM D1003	%	>1	*	-
Sound Transmission	ASTM E90 / E413	db	27	27	24
Water Absorption	ASTM D570	%	0.2	0.4	0.15
<b>MECHANICAL</b>					
Tensile Strength	ASTM D638	psi	11,000	11,030	9,500
Tensile Modulus of Elasticity	-	psi	465,000	490,000	340,000
Flexural Strength	ASTM D790	psi	14,700	17,000	13,500
Izod Impact Strength - Notched	ASTM D256	ft-lb/in	3.2	0.4	18
Izod Impact Strength - Unnotched	ASTM D256	ft-lb/in	-	-	60 (no break)
Rockwell hardness	ASTM D785	-	M-100	M-95	M-70 / R118
<b>THERMAL</b>					
Deflection Temperature @ 264 psi	ASTM D648	°F	200	203	270
Deflection temperature @ 66 psi	ASTM D648	°F	-	207	280
Coefficient of Linear Thermal Expansion	ASTM D696	in/in/°F	$3.5 \times 10^{-5}$	$3.0 \times 10^{-5}$	$3.75 \times 10^{-5}$
Thermal Conductivity	ASTM C177	Btu-in/hr•ft <sup>2</sup> •°F	0.12	0.075	1.35
Smoke Density Rating	ASTM D2843	%	13.5	>16.5	57.7
Self-Ignition Temperature	ASTM D1929	°F	750	833	1022
Horizontal Burn @ 0.236"	ASTM D635	in/min	0.65	>1	<1
Flammability	UL 94	94 HB	HB	HB	HB
<b>ELECTRICAL</b>					
Volume Resistivity	ASTM D257	Ohms/cm	$>3.92 \times 10^{15}$	-	$8.2 \times 10^{16}$
Dielectric Constant @ 10Hz	ASTM D150	-	3.0-3.6	-	2.96
Dielectric Constant @ 60Hz	ASTM D150	-	2.7	-	3.17

# INDUSTRY STANDARD COLORS

Standard Plaskolite Color	PMS Cross Ref.	OPTIX®	OPTIX® L	TUFFAK® SL	TUFFAK® LD	Standard Gauge*
Clear	-	-	-	Yes	-	0.093" - 0.236"
White 7328	-	Yes	Yes	Yes	Yes	0.060" - 0.236"
White 2406	-	Yes	Yes	-	-	0.118" - .0500"
White 2447	-	Yes	Yes	-	Yes	0.093" - 0.236"
<b>Black</b>	<b>Black C</b>	-	Yes	-	-	0.177"
<b>Yellow 8197</b>	<b>7548 C</b>	Yes	Yes	-	-	0.093" - 0.236"
<b>Green 7235</b>	<b>2426 C</b>	Yes	Yes	-	-	0.093" - 0.236"
<b>RED 2157</b>	<b>485 C2X</b>	Yes	Yes	-	-	0.118" - 0.177"
<b>Red 2283</b>	<b>485 C</b>	Yes	Yes	Yes	Yes	0.118" - 0.177"
<b>Red 6192</b>	<b>-</b>	-	-	Yes	-	0.118" - 0.177"
<b>Red 2793</b>	<b>186 C</b>	Yes	-	Yes	Yes	0.118" - 0.177"
<b>Blue 2114</b>	<b>288 C</b>	Yes	Yes	Yes	Yes	0.118" - 0.177"
<b>Blue 2050</b>	<b>280 C</b>	Yes	Yes	-	-	0.118" - 0.177"
<b>Blue 2051</b>	<b>300 C</b>	-	-	Yes	Yes	0.118" - 0.177"
<b>Green 2108</b>	<b>349 C</b>	Yes	-	Yes	Yes	0.118" - 0.177"
<b>Yellow 2037</b>	<b>Yellow C</b>	Yes	Yes	Yes	Yes	0.118" - 0.177"
<b>Orange 2119</b>	<b>166 C</b>	Yes	-	Yes	Yes	0.118" - 0.177"

\*Optix L - All "White" color Standard Gauges 0.118" - 0.177"

**Custom colors available - call Customer Service for details**

# CUSTOMIZED SERVICES

**Custom Extrusion for any Specification - Low Minimums, Fast Turn-Around**

## RUN-TO-SIZE PROGRAM

**PLASKOLITE OFFERS THE FLEXIBILITY OF RUNNING CUSTOM SHEET IN THE SIZES YOU AND YOUR CUSTOMERS NEED**

**PLASKOLITE also offers  
Run-To-Size for:**

- » OPTIX® Acrylic in Clear, Colors and Patterns
- » DURAPLEX Impact Modified Acrylic
- » VIVAK® PETG Sheet

**Wide range of sizes up to 105"**

**Thickness range from 0.040" to 1.0"**

**Low minimum order requirements**

**Quick turn-around times -  
the shortest in the industry**

**Non-stock material:**

- » Special tolerances, film coverages, thicknesses and sizes available
- » Saw cut edges available
- » 3,000 lb. minimum order required for a custom thickness of clear acrylic
- » 3,000 lb. minimum required for color production run
- » Minimum required for standard color production run, contact representative

**One-time custom color - 20,000 lb  
minimum**

**On line production:**

- » Saw cut and slitter / hot knife edges available
- » Sheet edges may vary - please specify preferred edge cut at the time of order

**Available for thicknesses .060" - .236"**

- » TUFFAK® SL Clear - 1,000 lb minimum

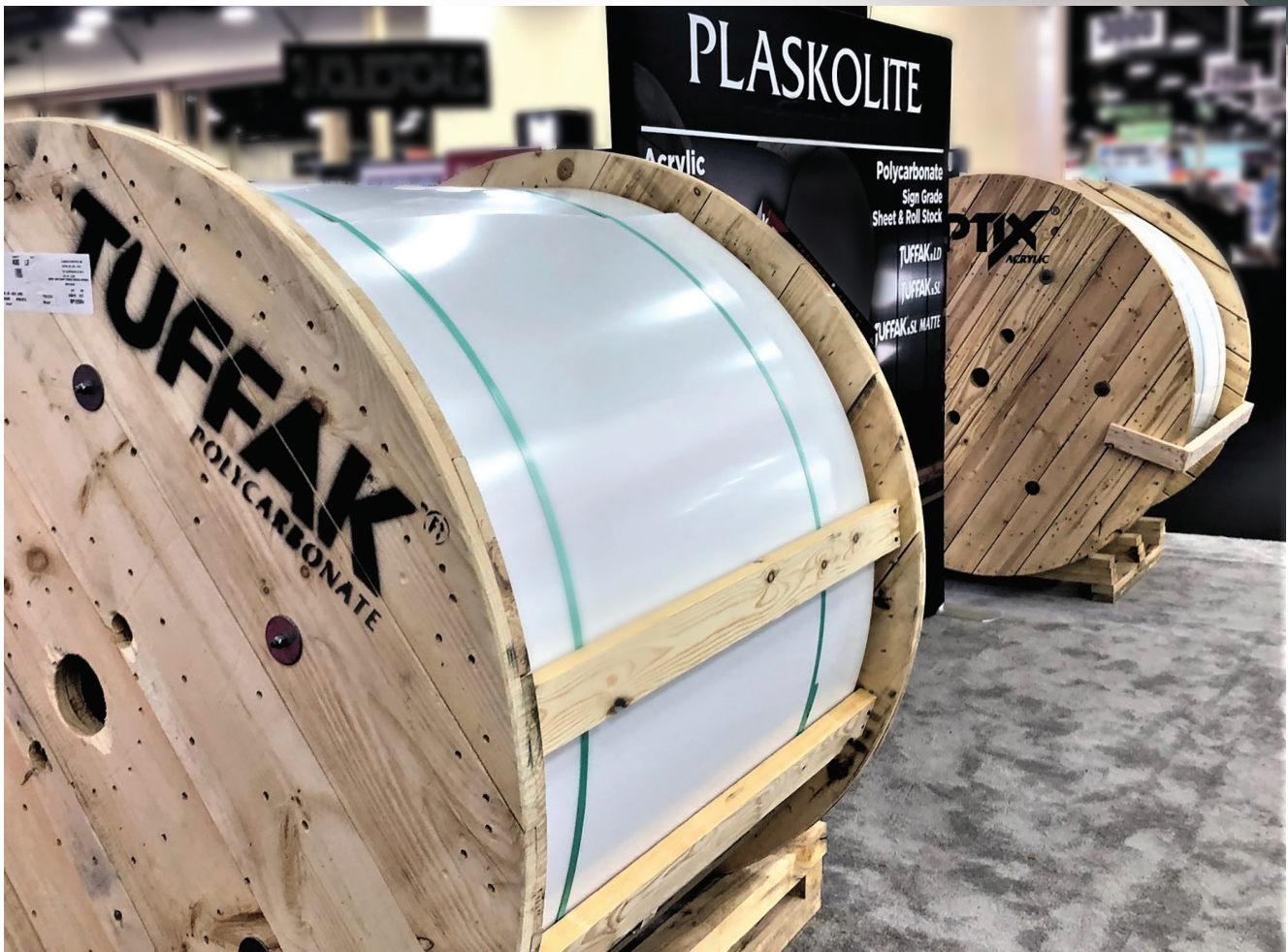
**TUFFAK SL Standard Colors -  
3,000 lb minimum**

- » B54 - White
- » B59 - White

**CALL CUSTOMER SERVICE FOR DETAILS AND MINIMUMS 1.800.848.9124**

## ACRYLIC AND POLYCARBONATE REEL STOCK

**BETTER TOTAL SHEET UTILIZATION, LESS SEAMS  
AND JOINTS IN FINISHED SIGNS, PROVIDES BETTER  
INVENTORY MANAGEMENT AND STORAGE**



**Contact customer service for standard and custom reel lengths and widths**

# PLASKOLITE

## A GLOBAL LEADER IN THE PRODUCTION OF THERMOPLASTIC SHEET

FOUNDED IN 1950

Our Mission: to deliver superior thermoplastic sheet, coatings and polymers to the world, through long-lasting customer relationships and hands-on customer service.

### MANUFACTURING LOCATIONS



From our founding, PLASKOLITE strives to treat our employees, our customers, our community and the world, with kindness, dignity and respect. This drives our continuing effort to create sustainable products, in a sustainable manner, for future generations. This on-going commitment is expressed in the

#### PLASKOLITE Sustainable Ecosystem:

#### QUICK FACTS

**STATUS:** Privately held

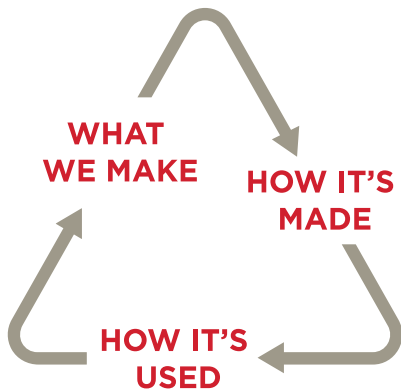
**GLOBAL HEADQUARTERS:** Columbus, OH

**EMPLOYEES:** 1900 Worldwide

**MARKETS SERVED:** Signage, Lighting, Retail Display, Construction, Transportation, Security, Bath & Spa, Industrial, Architecture, Green Houses

## OUR PILLARS OF SUSTAINABILITY

### EACH CONTRIBUTES TO MAKING THE WORLD A BETTER PLACE



#### WHAT WE MAKE

Versatile, high-quality, durable thermoplastic materials...not single-use plastics

#### HOW IT'S MADE

How we make our products reflects our overall philosophy of continuous environmental improvement

#### HOW IT'S USED

Our thermoplastics play an important role in advancing human well-being, energy conservation and quality of life

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determines the suitability of our materials and suggestions before adopting them on a commercial scale.

## PLASKOLITE

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