## Plexiglas® Diffuse™ V045-68209

Polymethyl Methacrylate Acrylic

Altuglas International of Arkema Inc.

## Message:

Plexiglas® Diffuse™ V045-68209 is a thermoplastic acrylic resin sufficiently concentrated to be used in blend formulations via extrusion to tailor lens properties in the LED lighting market. It is characterized by its exceptional hiding performance and high light transmission.

General Information				
Features	High Light Transmission			
Uses	LEDs			
	Mixing			
Forms	Particle			
Processing Method	Extrusion			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.19	g/cm³	ASTM D792	
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	1.7	g/10 min	ASTM D1238	
Molding Shrinkage - Flow	0.20 - 0.60	%	ASTM D955	
Water Absorption (24 hr)	0.30	%	ASTM D570	
Hardness	Nominal Value	Unit	Test Method	
Rockwell Hardness (M-Scale)	86		ASTM D785	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Modulus	2900	MPa	ASTM D638	
Tensile Strength (Break)	61.0	MPa	ASTM D638	
Tensile Elongation (Break)	15	%	ASTM D638	
Flexural Modulus	2700	MPa	ASTM D790	
Flexural Strength (Break)	100	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact (23°C)	38	J/m	ASTM D256	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load <sup>1</sup>			ASTM D648	
0.45 MPa, annealed	105	°C	ASTM D648	
1.8 MPa, annealed	100	°C	ASTM D648	
Vicat Softening Temperature				
	109	°C	ASTM D1525 <sup>2</sup>	
	104	°C	ASTM D1525 <sup>3</sup>	
Flammability	Nominal Value		Test Method	
Flame Rating	НВ		UL 94	
Optical	Nominal Value	Unit	Test Method	
Transmittance (2000 μm)	79.0	%	ASTM D1003	

Haze (2000 µm)	> 100	%	ASTM D1003	
Additional Information	Nominal Value		Test Method	
ASTM Classification	PMMA 0111T0V1		ASTM D788	
NOTE				
1.	Annealing Cycle: 16 ho (194°F)	Annealing Cycle: 16 hours @ 90°C (194°F)		
2.	速率 A (50°C/h), 压 力1 (10N)			
3.	速率 A (50°C/h), 载荷2 (50N)			

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## Recommended distributors for this material

## Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

