

## OPTICLEAR DATA SHEET

### *Flat Polycarbonate Sheet*

#### Introduction

OPTICLEAR delivers a winning combination of impact resistance and clarity. OPTICLEAR is virtually unbreakable, and as transparent as glass with less than half its weight. OPTICLEAR can be cold bent, fabricated and formed, making it ideal for applications such as safety glazing, machine guards, glazing in schools, prisons, and public buildings, and for thermoformed and fabricated products.

#### Benefits of OPTICLEAR

- High impact resistance – 200x stronger than glass
- Excellent light transmission and clarity
- Lightweight
- Easy to handle and install
- Good acoustical insulation
- Versatile and formable

#### Width x Length\* in (mm)

48 x 96 (1220x2440)

60 x 96 (1525x2440)

72 x 96 (1830x2440)

*\*Custom sizes also available. May require minimum quantity.*

#### Thicknesses in. (mm)

0.060 - 0.500 (1.5 to 12.7)

#### Colors

Clear

## Flammability

Standard	Classification
BS 476/7	Class 1Y
NSP 92501, 4	M1, M2
DIN 4102	B1, B2
CSE RF 2/75/A   CSE RF 3/77	Class 1
UL Classified	File e221255
ASTM D635	CC1

*\*All the above depends on sheet thickness.*

*For additional information please contact an Optiglass PC representative.*

## Physical Properties

Property	Method*	Conditions	Units	Value
Density	D-792		g/cm <sup>3</sup>	1.2
Heat Deflection Temperature	D-648	Load: 1.82 MP	°C	130
Service Temperature		Short Term	°C	-50 to +120
Service Temperature		Long Term	°C	50 to +100
Coefficient of Linear Thermal Expansion	D-696		mm/m °C	0.065
Thermal Conductivity	C-177		W/m K	0.21
Tensile Strength at Yield	D-638	10 mm/min	MPa	65
Tensile Strength at Break	D-638	1 mm/min	MPa	60
Elongation at Yield	D-638	10 mm/min	%	6
Elongation at Break	D-638	10 mm/min	%	>90
Tensile Modulus of Elasticity	D-638	1 mm/min	MPa	2,300
Flexural Strength	D-790	1.3 mm/min	MPa	100
Flexural Modulus	D-790	1.3 mm/min	MPa	2,600
Impact Falling Weight	ISO 6603/1 E50	3mm sheet	J	158
Rockwell	D-785		R Scale	125R

<b>Hardness</b>				
<b>Light Transmission</b>	D-1003	3mm clear sheet	%	89
<b>Haze</b>	D-1003	3mm clear sheet	%	<0.5
<b>Yellowness Index</b>	D-1003	3mm clear sheet	WI	<1

*\* ASTM except where noted*

*\*These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local Optiglass PC representative.*