

# POLARIZED LENS



PolaSky

PC Polarized Lens

\*PC Polarized Injection Lens **for sunglass**

\*PC Polarized Bent Lens **for sunglass**

\*PC Photochromic Polarized Bent Lens **for sunglass**

\*Polarized Tri-Acetate Lens **for sunglass**

\*Polarized Tri-Acetate Anti Fog Lens **for sunglass**

SANKOH CO.,LTD.

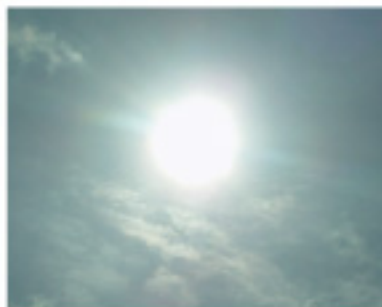
# PolaSky WORLD OF POLARIZATION

**You can clearly see the world.**

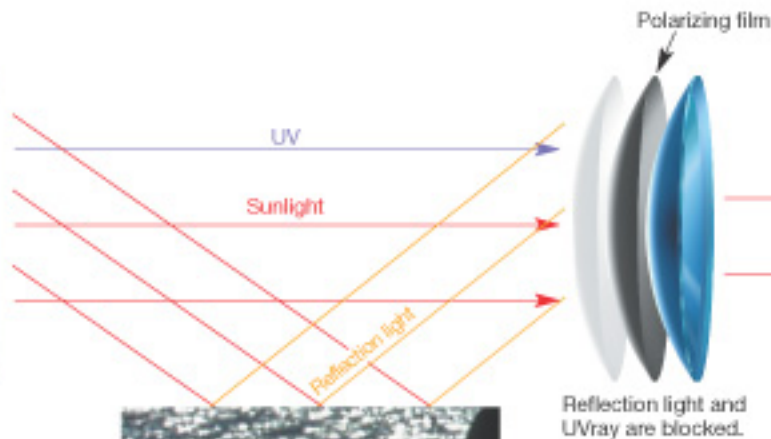
There are a lot of dazzling light not only directly from sun, but also from scattering reflection or refraction. Those lights always disturb our view.

Polarized lens regulates the dazzling light.

The Key is a polarized film laminated between 2 lenses, which acts like a window-shade and provides us clear vision.



Sunlight pours in all directions.



Dazzling light is created, reflecting from water surface.



You can see clear world.

## The Characteristic of "PolaSky"

- gives you the clear sight which excludes a surface reflection of light.
- presents you vivid glow and natural contrast in color.
- cuts harmful ultraviolet rays and keeps the safety of your eyes.
- has the highest impact resistant.
- is excellent about the heat resistant and the color stability, and control degradation of the polarization.
- can be used for halfrim nylon frames or rimless framens as well.

regular lens



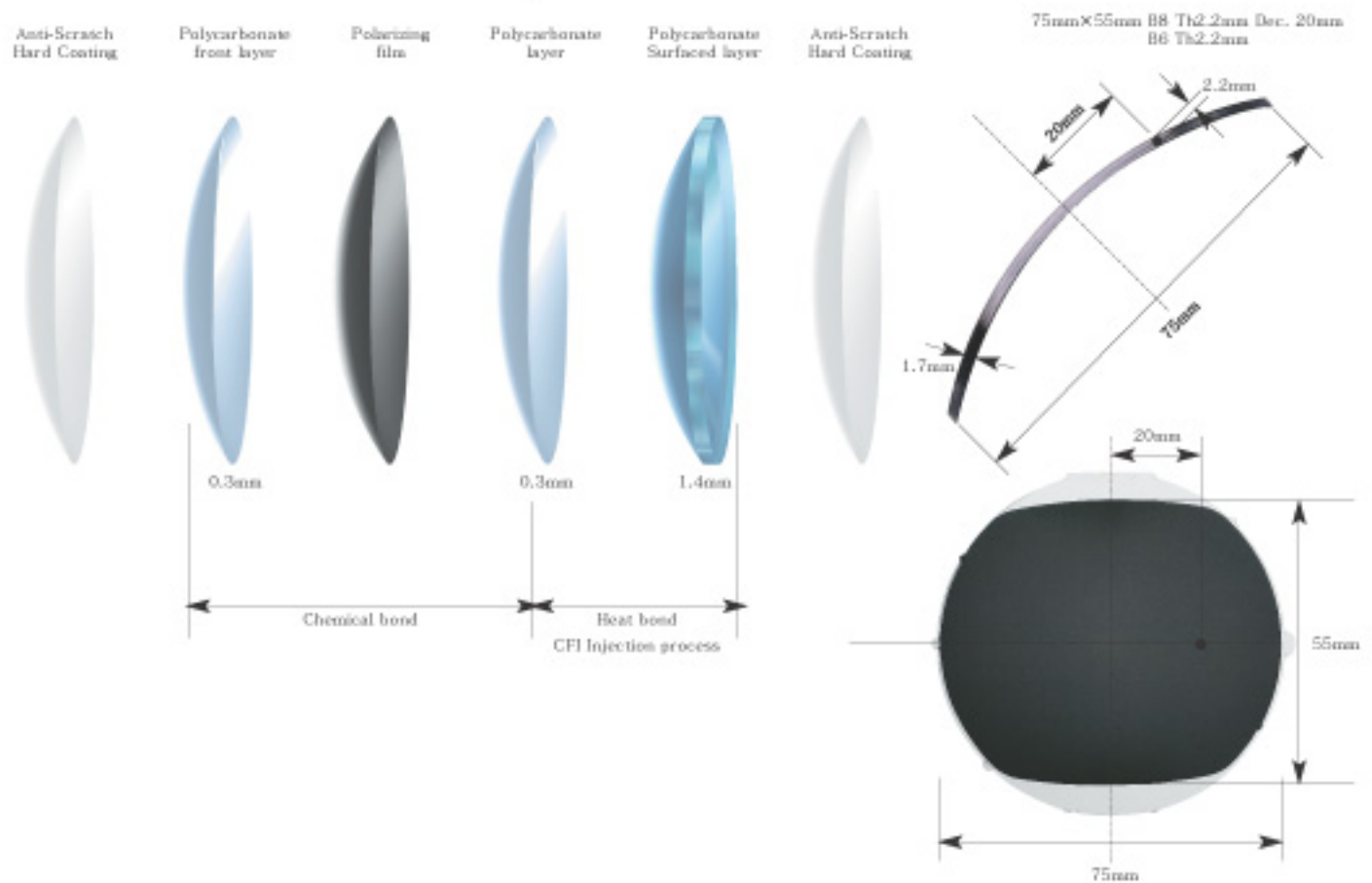
polarized lens



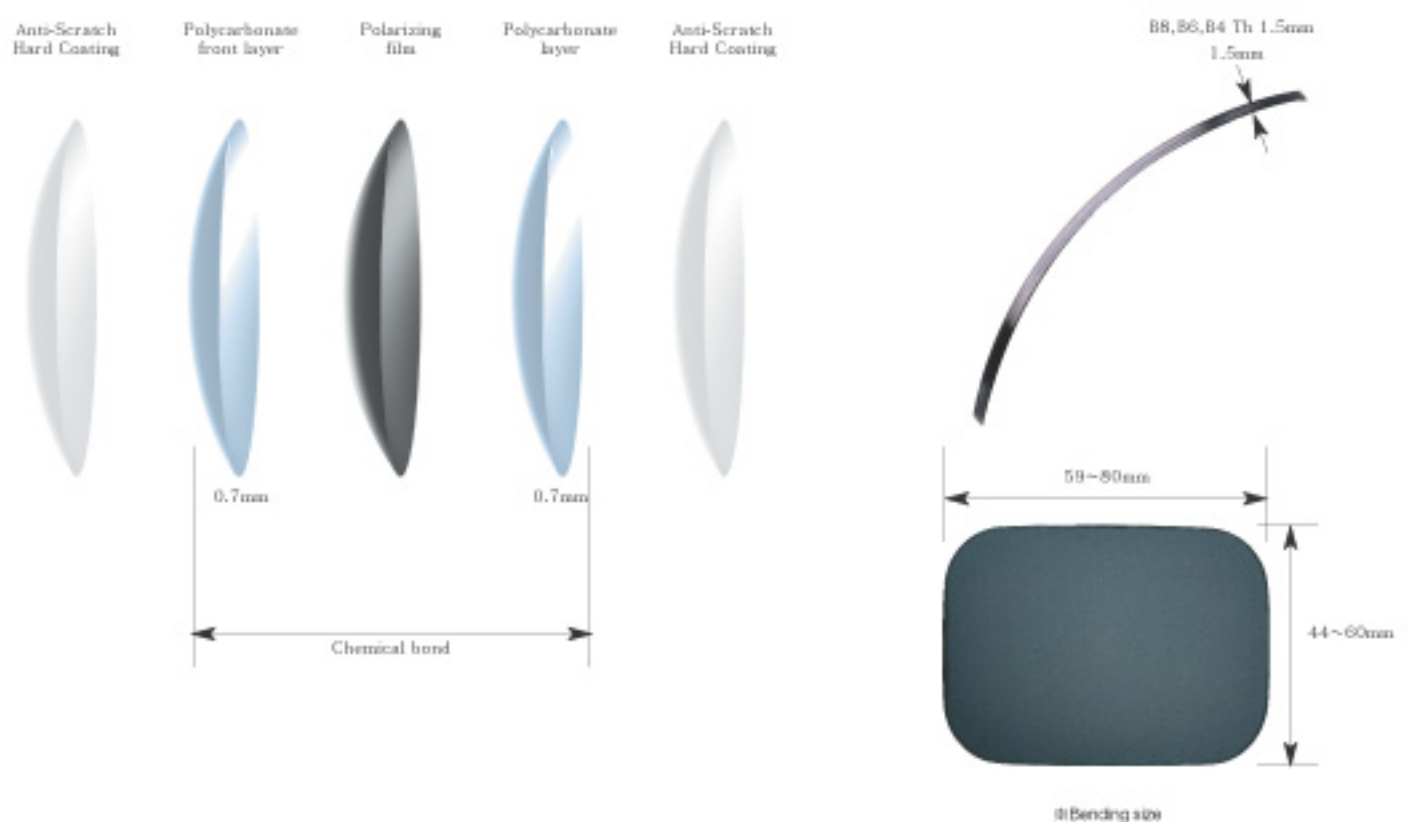
# WHAT IS PolaSky LENS?

## Polarized Lens

### Construction of injection lens



### Construction of bending Lens
















## PolaSky I POLYCARBONATE POLARIZED INJECTION LENS BY THE CFI PROCESS

It is a process of inserting pc polarized lens sheet and polycarbonate resin into a mould by the heat solvent injection. In the injection process, it is simultaneously added advanced function on the surface.

The polarizing films are covered and guarded by the pc lens sheets and the function of polarization is kept unchanged even if the lens is inserted into a frame. For the details of the CFI process, see <http://www.mep.co.jp/index.him> (the technology and service > processing technology > CFI introduction.)

(1) PolaSky I PC POLARIZED INJECTION LENS												
Material	Polycarbonate (PC)											
Curve	6R・8R											
Size	(TWO PIECE)											
	76φ Round type											
	The thickness:<6R>2.2mm / <8R>decentered 2.2mm~1.7mm (±0.1mm)											
Feature	1) Excellent impact resistance, which is incomparable in other plastic lenses 2) By CFI special process, pc resin and pc polarized sheet are injected 3) It is a epoch-making excellent lens which has good optical quality											
Color	Color		NO.	Visible %	Category	polarization %	Color		NO.	Visible %	Category	polarization %
	Dark Gray		GS	11.0	3	99	Copper		DR Driver	17.0	3	99
	Brown		BBW	20.0	2	99	Gray Green		BGR	19.8	2	99
Process	1) The lens sheet with the protection cover (Heat Resistant) 2) Cutting 3) Bending 4) The CFI injection process 5) Hard coating 6) Inspection 7) Color matching 8) Shipment											
Use for	<div></div> <p>Please select suitable lenses.</p>											
Remark	※Polarization is over 90% ※Ultraviolet ray transmittance is less than 0.1% ※Our lenses are all produced with Japanese lens material in Japan.											

★Besides above, please refer to our Inspection Certificate, which will be provided in your need.

### PolaSky B PC POLARIZED BENT LENS

Highly efficient polycarbonate polarized bending lens.





















It is a epock-making super highly efficient polarized lens sheet which is used as polycarbonate protective layer.

It has the high durableness and polarizability with rich color variation, easy processing and the strongest impact resistant.

Under the severe condition, it doesn't make defective appearance such as the lamination-off, the tear of polarizing device, and is very excellent about the dimensional stability.

Please refer to our data below which we experimented.

The variability of the polarization is less than 1%. Also the color interference fringe is controlled by our special manufacturing method.

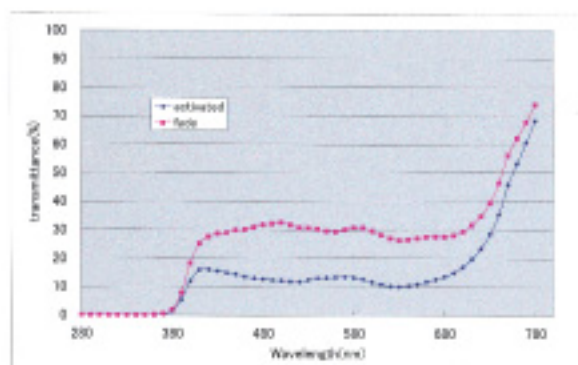
(2) PolaSky B		PC POLARIZED BENT LENS											
Material	Polycarbonate (PC)												
Curve	4R・6R						(4R)・6R・8R						
	(ONE PIECE)						(TWO PIECE)						
Size	Any size available												
	The thickness:1.5mm												
Feature	1) Excellent impact resistant, which is incomparable in other plastic lenses 2) Remove over 99% of Ultraviolet Rays 3) Many color variation												
Color	Color		NO.	Visible %	Category	polarization %	Color		NO.	Visible %	Category	polarization %	
	Light Gray		G-35	35	2	90	Brown		BW	18	3	99	
	Gray		SG	22	2	99	Dark Brown		BS	12	3	99	
	Gray		NGY	18	3	99	Green		G-15	16	3	99	
	Dark Gray		GS	11	3	99	Yellow Green		MG	17	3	99	
	Dark Gray		GSR 1121	11	3	99	Dark Brown		STB	12	3	99	
	Dark Gray		GRM	14	3	99	Brown		B-6221	22	2	99	
	Copper		DR Driver	18	2	98	Yellow		Y-8341	32	2	92	
Process	1) The lens sheet with protection cover (Heat Resistant) 2) Cutting in various sizes 3) Bending 4) Inspection 5) Color matching 6) Shipment												
Use for	<div></div> <div>Please select suitable lenses.</div>												
Remark	※Polarization is over 90% ※Ultraviolet ray transmittance is less than 0.1% ※Our lenses are all produced with Japanese lens material in Japan.												

**PolaSky BPP PC POLARIZED PHOTOCROMIC BENT LENS**

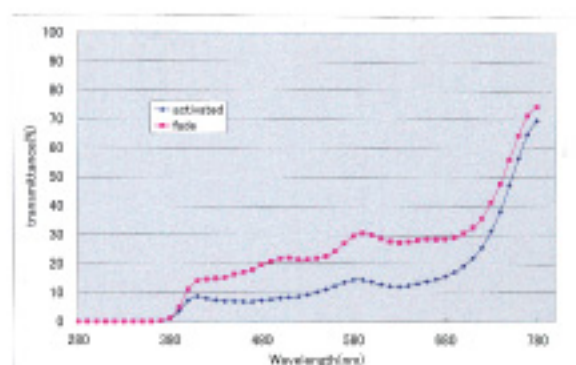
PolaSky BPP is the polycarbonate polarized photochromic lens, its color tone is well adjusted by the strength of sunlight(UV). PolaSky BPP have 3 merits, high impact resistance, photochromic function, and polarized function. 2 color variations are available, GHT(Gray) and BHT(Brown). GHT color cuts wide range of wavelength, and provide neutral color visibility in various fields. BHT color provides high contrast and visibility in various climate conditions, also less stimulative for long time wearing.



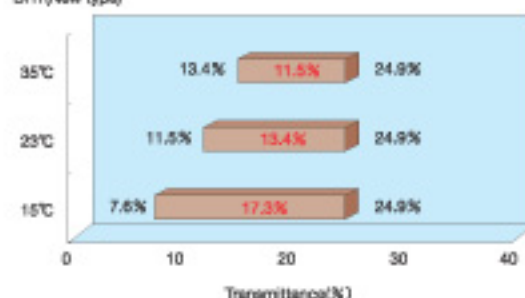
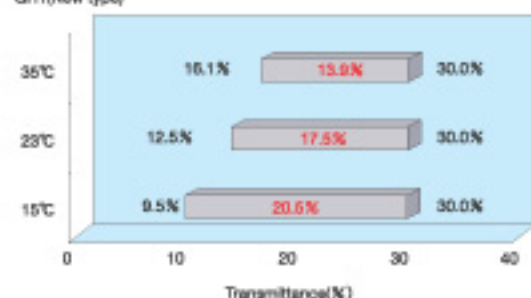
fade → activated








GHT



BHT



\*Above data are experimental values but not security valise.

(2) PolaSky BPP		PC POLARIZED PHOTOCROMIC BENT LENS										
Material	Polycarbonate (PC)											
Curve	4R・6R (ONE PIECE)					(4R)・6R・8R (TWO PIECE)						
Size	Any size available The thickness:1.5mm											
Feature	1) Excellent impact resistant, which is incomparable in other plastic lenses 2) Remove over 99% of Ultraviolet Rays											
Color	fade					activated						
	Color	NO.	Visible %	Category	polarization %	Color	NO.	Visible %	Category	polarization %		
	Light Gray		GHT	30	2	➡	Dark Gray			12	3	96
	Light Brown		BHT	25	2	➡	Dark Brown			11	3	97
Process	1) The lens sheet with protection cover (Heat Resistant) 2) Cutting in various sizes 3) Bending 4) Inspection 5) Color matching 6) Shipment											
Use for	 Please select suitable lenses.											
Remark	※Polarization is over 90% ※Ultraviolet ray transmittance is less than 0.1% ※Our lenses are all produced with Japanese lens material in Japan.											

## PolaSky T TRI-ACETATE POLARIZED LENS

It is thinner and lighter in weight, and the bending process is easy.  
It is a multipurpose inexpensive lens and used in various sunglasses such as a clip-on frame and an over glass or for one-piece and two-piece.

(3) PolaSky T		TRI-ACETATE POLARIZED LENS													
Material	Tri-acetate														
Thickness	0.8mm / 1.0mm														
Curve	4R・6R							4R・6R・8R							
Size	(ONE PIECE)							(TWO PIECE)							
	any sizes available														
Feature	1) Thinner 2) lighter weight 3) Easy cutting 4) Reasonable price														
Color	Color	NO.	Visible %	Category	Thickness mm	polarization %	Color	NO.	Visible %	Category	Thickness mm	polarization %			
	Light Gray		NC-82	44	1	0.8	95	Brown		NC-4	22	2	0.8 1.0	99	
	Gray		NC-28	17	3	0.8 1.0	99	Dark Brown		NCA-4	12	3	0.8 1.0	99	
	Light Green		NC-1	27	2	0.8	99	Amber		NCY-4	22	2	0.8	99	
	Green Gray		NCS-3	15	3	0.8 1.0	99	Yellow		NCY-D4	32	2	0.8 1.0	96	
	Dark Green Gray		NCS-1	7	4	0.8	99								
Process	1) The lens sheet with the protection cover (Heat Resistant) 2) Cutting in various sizes 3) Bending 4) Inspection 5) Color matching 6) Shipment														
Remark	※Polarization is over 90% ※Ultraviolet ray transmittance is less than 0.1% ※Our lenses are all produced with Japanese lens material in Japan.														

★Besides above, please refer to our Inspection Certificate, which will be provided in your need.

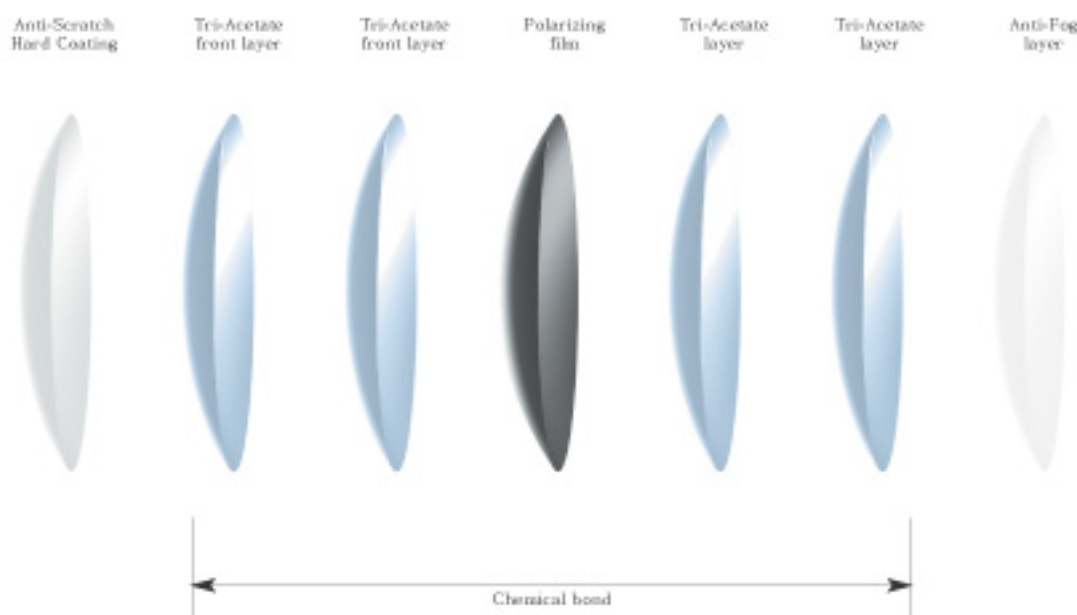


## PolaSky TAF TRI-ACETATE ANTI-FOG POLARIZED LENS

TAC AF is the functional lenses attaching anti-fog 'hydrophobic layer' on the back side of high quality TAC Polarized lens. Thanks to this additional layer technology, anti-fog function lasts semi-permanently under clean condition, compare with other ordinary 'anti-fog coating processed' lenses.

(3) PolaSky TAF		TRI-ACETATE ANTI FOG POLARIZED LENS											
Material	Tri-acetate												
Thickness	0.8mm												
Curve	4R・6R						4R・6R・8R						
Size	(ONE PIECE)						(TWO PIECE)						
	any sizes available												
Feature	1) Hand Coating / Anti Fog 2) Thinner 3) lighter weight 4) Easy cutting 5) Reasonable price												
Color	Color	NO.	Visible %	Category	Thickness mm	polarization %	Color	NO.	Visible %	Category	Thickness mm	polarization %	
	Light Gray	TAF-G46	46	1	0.8	95	Green Gray	TAF-GG17	17	3	0.8	99	
	Gray	TAF-G20	20	2	0.8	99	Dark Brown	TAF-B14	14	3	0.8	99	
Process	1) The lens sheet with the protection cover (Heat Resistant) 2) Cutting in various sizes 3) Bending 4) Inspection 5) Color matching 6) Shipment												
Remark	※ Front side : Hard coat    Back side : Anti Fog ※ Polarization is over 90% ※ Ultraviolet ray transmittance is less than 0.1% ※ Our lenses are all produced with Japanese lens material in Japan.												

★Besides above, please refer to our Inspection Certificate, which will be provided in your need.





## FEATURES OF PC POLARIZED LENS

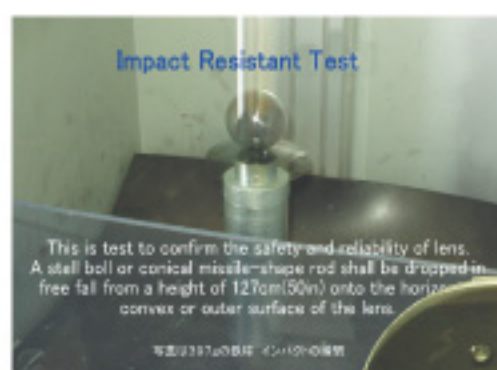
1. Polarization Effect : block dazzling lights from water, snow or road
2. PC Material : protect your eyes by the best impact-resistant lens material
3. UV Light Cut : shut harmful ultraviolet ray out (280~380nm)
4. High Adhesion : avoid lamination off
5. Less Discoloration : keep clear

## NATURE OF PC MATERIAL

### IMPACT RESISTANCE

	FDA STANDARD	CR-39	ACRYLIC	OPHTHALMIC LENS	POLYCARBONATE
DESTRUCTIVE ENERGY	0.2	0.37	0.15	0.2	10.2

unit: Jou (investigated by own data)



### HEAT RESISTANCE

75°C hot water test	50 hours	No change in external appearance
Boiling test	30 minutes	
Heating & Cooling cycle test	-20°C to 80°C ten cycles	
STRUCTURAL HEAT RESISTANCE	100°C 100 hours	

\* The measurements above are for a test material (3mm) using an MROX skin film and S3000 core material

\* The measured values are not guaranteed.

### CHEMICAL RESISTANCE

Aceton	After soaking filter paper in the chemical, the filter paper and test material are placed in contact for one minute. Then external changes are visually verified.	No change in external appearance
Methanol		
Methylene Chloride		
30% Sulphuric Acid		
37.5% Caustic Soda		