

# LASER SHIELD WINDOW

## CE YL-510C YAG2

### 1 General remarks

All persons staying in the danger zone of the laser radiation must shield the laser and use an appropriate protector. This product protects user from accidental exposure of laser radiation. This product meets the personal protective equipment of regulation(EU) 2016/425, the machinery of directive(EU) 2006/42/EEC and harmonized standard EN 207: 2009 + AC: 2011, EN 207: 2017, EN 12254: 2010 + AC:2011.



**Note:** Please check the CE declaration form from each page of the corresponding product at the following URL.  
<https://www.yamamoto-kogaku.co.jp/en/ce/>

※ Attach the attached CE mark sticker on the product body. Keep the seal at hand if it is not possible to attach it to the shield.

### WARNING

- Please use a product suitable for the laser to be used. Using wrong way leads to serious accidents.
- The user needs to understand the risk of the laser used by him / her and select protective equipment suitable for the laser. (For details, refer to "EN 60825-4: 2006, Annex B".)
- Even when using laser protector, please do not look into directly the laser beam.
- There is a danger of unexpected laser irradiation due to the reflection, tilts and misalignments of installed optics and optical parts.
- Before use, to be sure to check the product for scratches and tears, melting marks, etc. In such cases, please discontinue to use.

### CAUTION

- Dazzling light may occur in the work area during laser processing. To avoid glare, it is recommended to use a suitable shading filter according to EN 169 in addition to the laser shading screen.

### 2 Storing

- ① Handle the product so that it does not directly touch or scratch other objects or hard objects.
- ② After use, clean the product regularly to prevent dust etc. from adhering to the product and use it cleanly.
- ③ Do not use in direct sunlight, high temperature places, or places where organic solvents are used.
- ④ This product is made of acrylic resin. Please be careful when using it by sticking on glass or metal with adhesive, as it may cause deterioration or deformation. Also, do not use this product under conditions that may exceed 50 °C. The product may be deformed.

### 3 Cleaning

- ① When the products are stained with dirt, dust, iron powder and oil, you must wipe these products with soft cloth soaked in water.
- ② The resin part of this product may be deformed or broken depending on the type of organic solvent, acid and alkali. Do not use these chemicals for cleaning.
- If these adhere, wash in the same way as ① above.
- ③ If disinfection is required, wipe the product with a soft cloth containing a disinfection alcohol. After wiping off the disinfection alcohol well, please use it.

### 4 Expiration date for use

In case of following situations, please change the product to new one without using it.

- ① Bad condition such as scratches and cracks are found. Product changes such as melting by the laser light.
- ② After the product receives strong impacts even if it has normal appearance.
- ③ After exposing against strong light and high temperature, the change of color and deformation of the product might be found.
- ④ Three years later, the user should replace the product even under normal use and conditions.

### 5 Meaning of markings

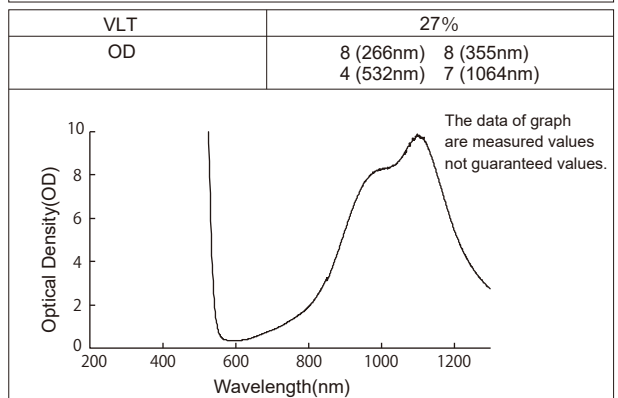
In order to be able to use the glasses as intended, certain markings have to be affixed to the products which have the following meanings:

Scale number according to EN12254		Abbreviation of the manufacturer	
2940	DIRM	AB3	YL CE
Wavelengths at which the glasses protect		Laser type D=continuous wave laser I=pulsed laser R=Giant pulsed laser M=Mode-coupled pulsed laser	

### 6 Absorption curve

In the following the spectral characteristics of the filters is given:

**Note:** The data of graph are measured values not guaranteed values. When luminous transmittance is less than 20%, please increase lighting in the workplace. Depending on the type of filter, warning lights and warning notices might be difficult to read. Optical class 3 filters are not intended for long term use.



### 7 Field of application

This product protects user against scattered light and diffuse reflection of a laser beam and it gives the user the possibility to protect from the laser beam within a certain period of time (※).

This product has following features:

Wave length range(nm)	EN207 ※max 5 sec resp.50pulse		EN12254 ※max.100 sec resp.1000pulse	
	Laser type	Scale number	Laser type	Scale number
180-315	D	LB8	D	AB8
	IR	LB4	IR	AB2
>315-515	D	LB5	D	AB5
	I	LB8	R	AB7
>515-532	R	LB7	—	—
	DIR	LB4	DIR	AB4
940-1150	DIR	LB6	DIR	AB6
1030-1100	D	LB6	D	AB6
	IR	LB7	R	AB7

SIZE \_\_\_\_\_ mm × \_\_\_\_\_ mm

Manufacturer

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