

# Laser Barrier Gloves YLBG-11

These gloves are made of thin, highly flexible laser-resistant material (BARRITEX®). The combination of thin, highly flexible laser-resistant material and special three-dimensional sewing technique has realized both "safety" and "workability".

The palm and fingertip reinforcements are made of genuine cowhide, which is resistant to stiffness and slippage, and allows work without loss of sensation in the fingertips during operation of the laser processing machine or removal of workpieces.



- Laser personal protective equipment made of BARRITEX®, a special laser shielding material. The material is thin, lightweight, and highly flexible while providing sufficient shielding performance.

## Guide

- BARRITEX® is a registered trademark of Yamamoto Kogaku Co.



- Laser Barrier Apron (YLBA-11) is available to protect workers' torso from the intense reflected and scattered light of high-power lasers.
- Laser Barrier Curtain (YL-2500) using BARRITEX®, a special material for laser shielding, is also available. The size is (W)900 x (H)1800mm.

## YLBG-11 Features at Glance

### Image of wearing Laser Barrier Gloves



The use of genuine cowhide leather reduces stiffness and resists slippage, allowing work without loss of fingertip sensation when operating the laser processing machine or removing workpieces from the laser processing machine.



Image of wearing with Laser Barrier Apron (YLBA-11)



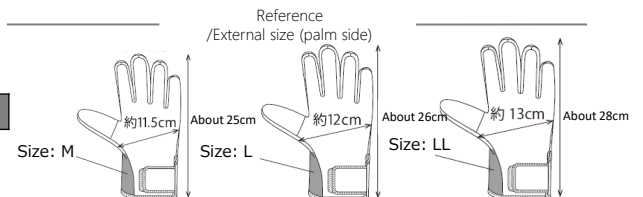
### Laser Resistant Performance Table Provided by Yamamoto Kogaku Co., Ltd.

Irradiation test of laser resistant material "BARRITEX®" only. Reference standard: EN12254:2010

Wavelength (continuous wave laser)	Irradiance/exposure	Penetration or not	protection stage
1030nm	$6.3 \times 10^5 \text{ W/m}^2$ (200W)	non-penetrating (100sec.)	D AB5
1064nm	$1.3 \times 10^7 \text{ W/m}^2$ (10W)	non-penetrating (100sec.)	D AB5

### Common Specifications

Material	Back of hand: aramid fiber, intermediate layer on the back of hand: BARRITEX® special laser shielding material, palm and fingertip reinforcement: genuine cowhide
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### Specifications

Part Number	Size [cm]	Weight [kg]
YLBG-11-M	M size: Palm circumference 21.0 - 22.0/ Palm length 18.0 - 19.0	about 0.2
YLBG-11-L	L size: Palm circumference 22.5 - 23.5/ Palm length 19.0 - 20.0	about 0.2
YLBG-11-LL	LL size: Palm circumference 24.0 - 25.0/ Palm length 20.0 - 21.0	about 0.2

## ■ Precautions for use

- Do not use these gloves during operations other than laser processing operations.
- Always wear these gloves in laser-controlled areas. Do not remove these gloves while working.
- If the product is exposed to significant laser energy or damage occurs even once, stop using it immediately and replace it as soon as possible.
- This product does not protect against high temperatures. Use caution when handling objects that have been heated by laser processing.
- Depending on one's constitution, itching, rash, etc. may occur during use. Discontinue use if any abnormality is detected.
- High concentrations of chemicals (acids, alkalis, etc.), oils (kerosene, machine oil, etc.), and solvents (gasoline, benzene, etc.) may cause deterioration. Before handling chemicals, please check the chemical resistance of the product and confirm its safety before use.
- Although these gloves are made of a material with excellent cut resistance, they are not absolutely safe gloves, so please be very careful when handling sharp objects.
- Cut resistance may be reduced when wet, so please use them when they are well dry.
- After wetting or hand washing, remove water, shape and hang dry in the shade in a well-ventilated place.  
\*If you are concerned about stains, wipe the stain with a soft cloth soaked in diluted dishwashing detergent.  
\*Do not use bleach, especially chlorine-based reducing bleach.
- Do not use a hair dryer, heater, etc. for forced drying.
- Discoloration is caused by sunlight and ultraviolet rays. If the yarn becomes discolored due to sunlight, etc., its strength may be reduced, so we recommend storing it in the bag in which it was delivered after use in a dark place.
- Please do not alter or repair the product by the user, as this may cause accidents or damage to the product and is dangerous.

## Overview of classifications indicating hazards mandated for laser equipment

### JIS Laser Classification

Laser class	Class positioning
<b>Class1</b> <b>Class1M</b> <b>Class1C</b>	Laser products that are safe for prolonged direct in-beam observation by the naked eye without the use of optical instruments. Observing laser products in the beam may cause visual effects such as blinding, especially in dark environments.
<b>Class2</b> <b>Class2M</b>	Applies to the visible light wavelength range of 400-700 nm. If the laser beam is viewed through binoculars or loupes, it can cause eye damage. Even without optical instruments, staring into the beam is dangerous.
<b>Class3R</b>	Laser products with relatively small risk of failure. The risk of damage increases with exposure time, and exposure by eye exposure and direct in-beam observation under the worst conditions, such as working in the dark or with fine beam diameters, can be dangerous.
<b>Class3B</b>	When in-beam exposure to the eye occurs, even brief exposures due to accidental exposure are very dangerous laser products. Observation of diffuse reflected light is usually safe.
<b>Class4</b>	This laser product is dangerous for in-beam observation and exposure to skin. Observation of diffuse reflected light is also dangerous. In some cases, there is a risk of fire.

### Details of safety measures required when using each class of laser equipment

#### Class-specific treatment standards for laser equipment

Excerpt from the Ministry of Health, Labor and Welfare's notice "Measures to Prevent Laser Radiation Injury." No. 0325032

Description of measures (items only)			Class of laser equipment			
			4	3B	3R	2M · 1M
Controlled area (Signs, No entry)			○	○		
Work management, health management, etc.	protective gear	Safety glasses	○	○	○*1	
		Work clothes with minimal skin exposure	○	○		
		Use of flame-retardant materials	○			

\*1 Measures should be taken for laser equipment emitting laser beams outside the 400-700 nm wavelength range.

\*2 For laser equipment listed in JIS Standard 10.6, measures must be taken at the end of the laser optical path.

# Laser Barrier Apron YLBA

Protects the operator's torso from the intense reflected and scattered light of high-power lasers. It is an easy to put on and take off type apron for outdoor work in high temperature and high humidity, work in high places, and work in confined spaces. Protects the worker's torso from the risk of unexpected exposure to intense reflections and scattered light during laser processing operations.

- Laser personal protective equipment made of BARRITEX®, a special laser shielding material. While achieving sufficient shielding performance, the material is thin, lightweight, and highly flexible.



FRONT

BACK

## Guide

- "BARRITEX®" is a registered trademark of Yamamoto Kogaku Co. レーザー遮蔽特殊素材

**BARRITEX®**  
LASER BARRIER TEXTILE

- Laser Barrier Gloves (YLBG-11 Series) are also available to protect fingertips and hands.
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## YLBA Features at Glance

### Wearing Image



The color is light blue.  
The surface can be wiped clean with water.

Easy buckle for attaching and detaching.

Gloves made of laser-resistant material (BARRITEX®) are also available.



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### Specification

Part Number	External dimensions [mm]	Material	Size	Weight [kg]
<b>YLBA-11</b>	(W) 600 x (H) 860	Special laser shielding material 「BARRITEX®」	Free	0.48

YLBA-E2403

## Precautions for use

- Although this product blocks laser light, even scattered laser light may generate heat and become hot when irradiated for a long period of time. Please wear the product in such a way that it does not come in direct contact with the skin, as there is a risk of burns.
- When wearing this product, please wear it so that the "YAMAMOTO" logo is on the front.
- Do not use this product for any work other than laser processing work.
- Always wear this apron in the laser-controlled area. Do not remove the apron while working.
- If the apron is exposed to high laser energy or damaged even once, stop using it immediately and replace it as soon as possible.
- Depending on one's constitution, itching, rash, etc. may occur during use. Discontinue use if any abnormality is detected.
- High concentrations of chemicals (acids, alkalis, etc.), oils (kerosene, machine oil, etc.), and solvents (gasoline, benzene, etc.) may cause deterioration. Before handling chemicals, please check the chemical resistance of the product and confirm its safety before use.
- After wetting or washing by hand, remove water, shape the product and hang it in the shade in a well-ventilated place.  
\*If you are concerned about stains, wipe off stains with a soft cloth soaked in diluted dishwashing detergent.  
\*Do not use bleach, especially chlorine-based reducing bleach.
- Do not use a hair dryer, heater, etc. for forced drying.
- Sunlight and ultraviolet rays may degrade the performance. Store in a dark place after use.
- Modification or repair of the product by the user is dangerous and may cause accidents or damage to the product.

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		Use of flame-retardant materials	○			

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