Laser Curtains, Barriers and Safety Supplies

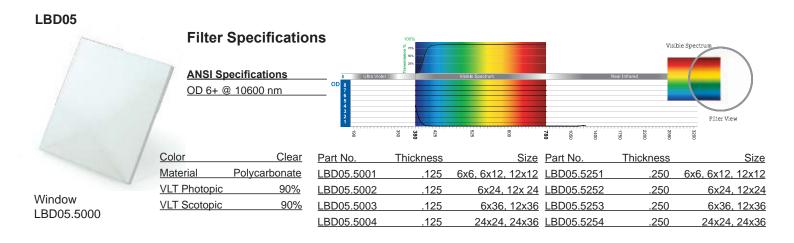


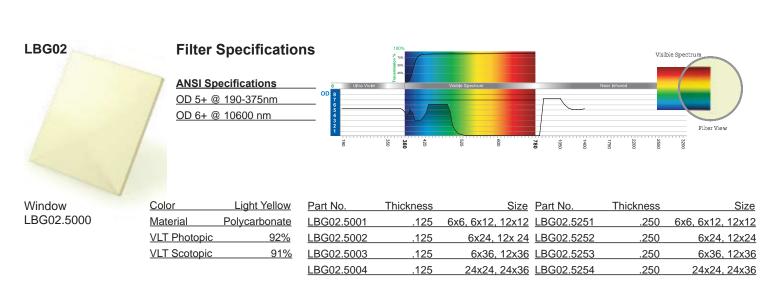
www.LabBuildersinc.com

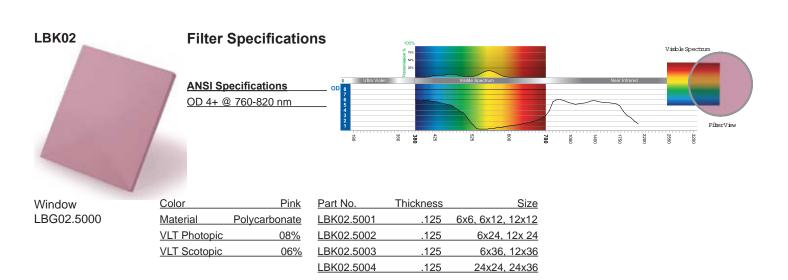


Windows

LB Laboratory Builders, Inc.







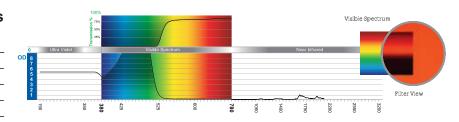
Windows

LB Laboratory Builders, Inc.

LBN01

Filter Specifications

ANSI Specifications	
OD 5+ @ 190-375 nm	
OD 4+ @ 375-532 nm	
OD 6+ @ 532 nm	
OD 5+ @ 10600 nm	



Window LBN01.5000

Color		<u>Orange</u>	F
Material	Pc	<u>lycarbonate</u>	L
VLT Photo	pic	35%	L
VLT Scoto	pic	03%	L

Part No.	Thickness	<u>Size</u>
LBN01.5001	.125	6x6, 6x12, 12x12
LBN01.5002	.125	6x24, 12x 24
LBN01.5003	.125	6x36, 12x36
LBN01.5004	.125	24x24, 24x36

LBP01

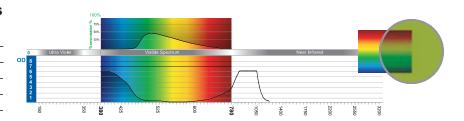


LBP01.5000

Filter Specifications

ANSI Specifications	
OD 6+ @ 180-315 nm	
OD 5+ @ 315-420 nm	
OD 3+ @ 790-820 nm	
OD 4+ @ 820-850 nm	
OD 5+ @ 850-940 nm	
OD 6+ @ 940-1065nm	
OD 4+ @ 1065-1080 nm	
OD 3+ @ 2750-3000 nm	
<u> </u>	_

Color	Light Green
Material	Polycarbonate
VLT Photopic	40%
VIT Scotopic	26%



Part No.	Thickness	Size	Part No.	Thickness	Size
BP01.5001	.135(+/010)	6x6, 6x12, 12x12	LBP01.5001	.250	6x6, 6x12, 12x12
BP01.5002	.135(+/010)	6x24, 12x 24	LBP01.5002	.250	6x24, 12x 24
BP01.5003	.135(+/010)	6x36, 12x36	LBP01.5003	.250	6x36, 12x36
BP01.5004	.135(+/010)	24x24, 24x36	LBP01.5004	.250	24x24, 24x36

LBP04



LBP04.5000

Filter Specifications

ANSI Specifications				
OD 5+ @ 190-375 nm				
OD 6+ @ 694 nm				
OD 5+ @ 670-710 nm	_			
OD 5+ @ 10600 nm	_			

Color	Blue Greer
Material	Polycarbonate
VLT Photopic	46%
VLT Scotopic	72%

0 OD 8	Ultra Violet	% uoission %	0% 75%		Visible Spectru	m		_		Near Infran	ed			
7 6 5 4 3 2 1	190	350	380	425	525	600	780	1050	1400	1750	2200	2550	3200	

Part No.	Thickness	<u>Size</u>
LBP04.5001	.125	6x6, 6x12, 12x12
LBP04.5002	.125	6x24, 12x 24
LBP04.5003	.125	6x36, 12x36
LBP04.5004	.125	24x24, 24x36

Windows

LB Laboratory Builders, Inc.

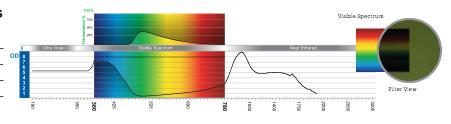
LBP05

Window LBP05.5000

Filter Specifications

ANSI Specifications

OD 5+ @ 190-375 nm OD 5+ @ 900-1070 nm OD 5+ @ 10600 nm



Color	Green
Material	Polycarbonate
VLT Photopic	40%
VLT Scotopic	26%

Part No.	Thickness	Size
LBP05.5001	.135(+/010)	6x6, 6x12, 12x12
LBP05.5002	.135(+/010)	6x24, 12x 24
LBP05.5003	.135(+/010)	6x36, 12x36
LBP05.5004	.135(+/010)	24x24, 24x36

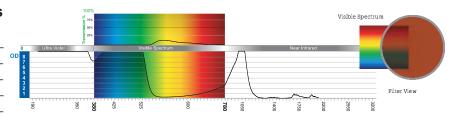


Filter Specifications

ANSI Specifications

OD 5+ @ 190-375 nm OD 4+ @ 375-532 nm OD 4+ @ 900-1070 nm OD 5+ @ 1064 nm OD 5+ @ 10600 nm

Color	Brown
Material	Polycarbonate
VLT Photopic	06%
VLT Scotopic	01%



Part No.	Thickness	Size
LBP06.5001	.125	6x6, 6x12, 12x12
LBP06.5002	.125	6x24, 12x 24
LBP06.5003	.125	6x36, 12x36
LBP06.5004	.125	24x24, 24x36

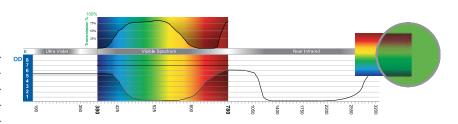


Filter Specifications

ANSI Specifications

OD 6+ @ 200-410 nm OD 2+ @ 640-1106 nm OD 4+ @ 680-1080 nm OD 6+ @ 692-1064 nm OD 5+ @ 10600 nm

Color	<u>Green</u>
Material	Polycarbonate
VLT Photopic	21%
VLT Scotopic	17%



Part No.	Thickness	Size
LBP07.5001	.125	6x6, 6x12, 12x12
LBP07.5002	.125	6x24, 12x 24
LBP07.5003	.125	6x36, 12x36
LBP07 5004	125	24x24 24x36

Domes

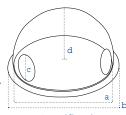
LB Laboratory Builders, Inc.

Laser Safety Domes

Laser Safety Domes are especially for demonstration of laser applications in public areas or at trade shows. These glueless manufactured domes are made of acrylic laser safety filter material and offer extremely good visibility without any protruding edges or connectors. The dome has two access points for easy handling of laser beam dilivery systems. Laser Safety Domes

a inside Diameter

18 are ideal to showcase your laser innovations and capabilities while keeping the safety of you demonstrator and clients in mind.



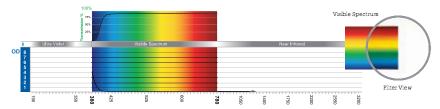
a	Inside Diameter	18"
b	Outside Diameter	20"
c	Holes Diameter	5" x 5"
	Height	9"







LBD05.5DME



Filter Specifications Al

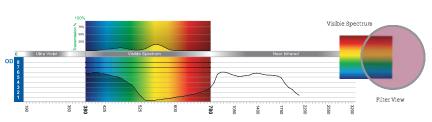
Color	Clear
Material	Polycarbonate
VLT Photopic	90%
VLT Scotopic	90%

NSI Specifications	_ Lasers
D 5+ @ 10600 nm	— Co2
D 3+ @ 2750-2848 nm	Fr. YAG

OD 2+ @ 2840-2920 nm **HF Chemical** OD 1+ @ 2920-3000 nm Xe-He

LBK02

Window LBK02.5DME



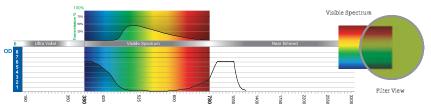
Filter Specifications

•	
Color	Pink
Material	Polycarbonate
VLT Photopic	08%
VLT Scotopic	06%

Α

NSI Specifications	_ Lasers
DD 4+ @ 760-820 nm	— Alexandrite
	Diode
	Dye Lasers





Filter Specifications ANS

•	
Color	Light Green
Material	Polycarbonate
VLT Photopic	65%
VLT Scotopic	26%

ANSI Specifications	Lasers
OD 3+ @ 900-950 nm	InGaAs
OD 4+ @ 950-975 nm	Nd:Glass
OD 5+ @ 975-1020 nm	Yb:YAG
OD 4+ @ 1020-1030 nm	
OD 3+ @ 1030-1060 nm	_



Barriers

LB Laboratory Builders, Inc.

Laser Safety Curtains

Our laser protective barriers are tested to withstand exposures depending upon a variety of laser output parameters including beam power, beam size, exposure time, and the laser's wavelength. Frames and hardware are designed to reduce specular reflection.

Custom Curtain Barriers

Custom options can take many forms related to being installed in the workplace, or they may be integrated into machinery housing. Lab Builders offers standard and customer-specific solutions for screening which comply with the applicable standards. On account of the wide range of possible materials, sized and solutions, we advise our customers on their protection issues to contact us with specifications of their laser and space in order to find the best possible solution.

The American National Standards Institute for Safe Use of Lasers (ANSI Z136.1) identifies laser protective barriers and curtains as an important control measure in certain laser environments. These safety barrier systems are designed to comply with ANSI Z136.1, providing protection from direct laser beams and scattered laser radiation for personnel.



Curtain Material

The ability of the laser safety barrier material to withstand an exposure depends upon the laser output parameters including, beam power, beam size, exposure time and laser type. Labels standard on all barriers.



LB9000

Fiberglass base fabric that has been coated with a formulated silicone rubber compound. This barrier material is tear, water and oil resistant which provides low smoke and flame resistance.

LB9001

Fiberglass base fabric that has been coated with a formulated silicone rubber compound. This barrier material is tear, water and oil resistant which provides low smoke and flame resistance. The inner lining is a silica woven material designed to resist extreme temperatures.

LB9003

Fluoropolymer coated woven fiberglass fabric with a black finish. This product is difficult to ignite and will ordinarily not burn once the source of ignition is removed. This material qualifies as clean room material.

LB9004

Fluoropolymer coated woven fiberglass fabric with a black finish. This product is difficult to ignite and will ordinarily not burn once the source of ignition is removed. The inner lining is silica woven material designed to resist extreme temperatures. This material qualified as clean room material.

Curta	ain Barrier Material Part #	Maximum Irradiance Level	Maximum Exposure Time
	LB9000	200 W/cm2	100 sec.
	LB9001	300 W/cm2	100 sec.
	LB9003	20 W/cm2	100 sec.
	LB9004	200 W/cm2	100 sec.

Barriers

LB Laboratory Builders, Inc.

Curtain Options

Frames and hardware are designed to reduce specular reflection. Barriers systems are supported by a heavy duty steel frame that can be mounted to meet your specifications.

Wall/End Mount

Wall mount barrier systems are ideal for situations where laser protection is required to run adjacent with a wall, entry way or equipment. End mount is used when the laser barrier is running perpendicular to a wall and the end of the roller track is flush with that wall.

Ceiling Mounted

Ceiling mounted curtain systems accommodate most ceiling and floor plans. Different hardware allows barrier to be bolted directly flush to the ceiling or suspended from a rod or chain.

Floor Mounted

Floor mounted barrier and curtain systems are easy to install and accommodate rooms with high ceilings. This barrier system can be secured to the floor or left free-standing to easily be moved to other locations.

Bench/Work Area Enclosure

Integrate a laser safety curtain directly around your equipment or workbench. This allows more flexibility with relocation or repositioning in the lab.

Portable Curtain Barrier

Portable barrier systems are designed for easy relocation. Smooth-rolling casters make these barriers ideal for even the most demanding environment.

Swivel Arm Curtain Barrier

This portable multi-layer curtain structure consists of high absorbing and nonflammable textiles and metal inner layers. The swivel arm can rotate to a U-shape for the greatest amount of protection.

Window Covering

Cover windows and small room openings with barrier systems that are designed to be attached on small curtain rods or with a hook and loop fastener.



Part Number	Size/Material		A CONTRACTOR OF THE PARTY OF TH
LBP01.5001	6x8 w/9000		
LBP01.5002	7x8 w/9000	The same of the sa	
LBP01.5003	8x8 w/9000	No. of the last of	NORTH LAND

LB Laboratory Builders, Inc.

Curtain Track and Accessories

We will work with you to make the safest and most cost effective laser safety environment. Laser safety curtain systems and options are unique due to laser types and room dimensions. Contact us to design your system or for a quote. Additional components and accessory options are available.

Steel Wheel Trolleys

Constructed with steel ball bearings allowing heavy curtains to roll easily. Trolleys connect with grommets on the top edge of the barrier curtain. One trolley every 12" of curtain is recommended with one trolley at each end of the curtain.

Roller Track

The and twenty foot tracks are made of heavy duty 16 gauge steel designed for strong curtain support and smooth roller action.

Base Plate (Floor Mounted)

Six and twelve inch base plates support the track with poles of various heights. This floor mount hardware is useful to contain lasers operation in the middle of a large lab, a production area or even for use at trade shows.

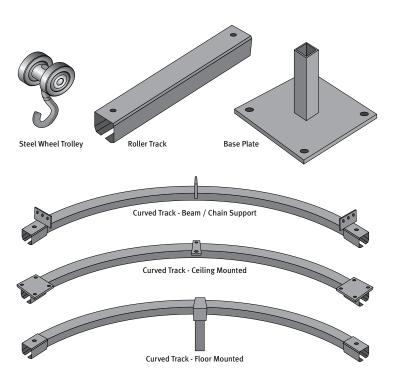
Curved Track

Curved tracks are designed with various end connectors for securing adjacent sections of a roller track. The standard curve is 90 degrees over a 2 foot radius.

Additional Options

- Fasteners
 - Standard Hook and Loop
 - Heavy Duty 3M Dual Lock
- Grommets
- Sign Pockets
- Hardware painting (Black Powder Coating)
 -Minimize reflections
- Window Coverings / Valances

Barriers





Barriers

LB Laboratory Builders, Inc.

Laser Safety Rigid Board Barrier

Laser barrier Rigid Boards are a versatile dense foam material with aluminum lining and a black matte finish. The special designed surface structure makes it suitable for all applications in industry and research environments. The material is mounted in an aluminum frame and compatible with a laser safety window. Custom options available.

- High laser resistance
- · Easy to clean, disinfectable surface
- Usable as a flexible and portable room divider

Rigid Board Barrier Specifications

Part Number	Description Size/Barrier Material	Maximum Irradiance Level	Maximum Exposure Time
LBP04.5001	4x6 w/ Rigid Board	1000W/cm2	100 sec.
LBP04.5002	4x7 w/ Rigid Board	1000W/cm2	100 sec.
LBP04.5003	4x8 w/ Rigid Board	1000W/cm2	100 sec.



Roll-Up Laser Safety Barrier

In order to meet the increasing need of portable and flexible large area laser protection, Laservision offers a barrier solution for temporary laser safety. The system is ideally used during service, maintenance or demonstration of laser systems.

The Roll-Up Barrier consists of one lightweight certified laser safety curtain barrier. The curtain element is 3x6 feet in diameter and is held in place by two metal profiles and pull upright by a special metal expanding system. The design of the lower holder and back support structure, keep the whole system securly in place.

Roll-Up Barrier elements can be connected together with a hook and loop strap to form a larger laser safe area. Due to the high flexibility without a rigid frame it is possible to connect and form a stable 90 degree corner. The Roll-Up Barrier features flexibility and mobility, it is the ideal laser safety solution for temporary use in all fields of laser technology

- Light weight flexible self-supporting barrier
- · Easy and fast mounting
- · Includes transportation bag and foldable telescope frame

Barrier Roll-Up Specifications

Part Number	Description	Maximum Irradiance Level	Maximum Exposure Time
LBP01.5000	3x6 / Roll-up	500 W/cm2	100 sec.



Laser Safety Signs and Labels

Keep personnel aware and safe with appropiate signs and labels in laser environments. We provide a complete line of caution, danger and notice signs that are available in both standard and custom formats to fit any application you may require.

We will customize your sign for any laser application, including options for additional languages.





Laser class radiation.

Avoid eye or skin exposure to direct o scattered radiation.

Approved laser protective eyewear







Signs and Labels

LB Laboratory Builders, Inc.









Class 3R

A Class 3R laser is a laser system which may produce up to five times the emission limit for Class 1 or Class 2 lasers. Although the MPE can be exceeded, the risk of injury is low. The laser can produce no more then 5mW in the visible region.

Class 3B

A Class 3B laser produces light of an intensity such that the MPE for eye exposure maybe exceeded and direct viewing of the beam is potentially serious. Diffuse radiation (i.e. that which is scattered from a diffused surface) should not be hazardous. CW emission from such lasers at wavelengths above 315 nm must not exceed 500 watts.

Class 4

Class 4 lasers are high powered and are hazardous to view at all times and may cause devastating and permanent eye damage. Class 4 lasers may also have sufficient energy to ignite materials and may cause significant skin damage. Exposure of the eye or skin to both the direct laser beam and to scattered beams, even those produced by reflection from diffusing surfaces, must be avoided at all times. In addition, they may pose a fire risk and may generate hazardous fumes.

Notice

For temporary use when laser systems are under repair and the accessible laser radiation exceeds acceptable MPE.



Laser Warning Symbol

This symbol indicates that a potential hazard to personal safety exists from a laser source and to proceed with all necessary precautions.

Signs & Labels











Item Options	Class 3R	Class 3B	Class 4	Notice
Lit (12"x16"x2")	LB.801.00	LB.801.02	LB.801.01	LB.801.04
Plastic (10"x14"x1/8")	LB.802.00	LB.802.02	LB.802.01	LB.802.04
Magnetic (10"x14"x1/8")	LB.803.00	LB.803.02	LB.803.01	LB.803.04
Label (10"x14")	LB.804.00	LB.804.02	LB.804.01	LB.804.04
3 Labels (5"x3")	LB.805.00	LB.805.02	LB.805.01	LB.805.04
3 Labels (3"x2")	LB.806.00	LB.806.02	LB.806.01	LB.806.04
3 Labels (2"x1.5")	LB.807.00	LB.807.02	LB.807.01	LB.807.04

Item Options	Warning
3 Labels (4"x4")	LB.808.00
3 Labels (3"x3")	LB.809.01
3 Labels (2"x2")	LB.810.02



Safety Eyewear

LB Laboratory Builders, Inc.

Laser Safety Eyewear

"What do people expect from laser safety eyewear?" The answer is maximum protection and optimal comfort, packaged together with stylish design. Certainly, this is the best way of persuading people to wear laser safety eyewear over long periods. Eyewear must be capable of adapting to individual head shapes while ensuring a pressure-free fit and providing total eye protection. Why? Because our number one priority is the safety and comfort of people that use lasers.

F01



Designed to be an economical eyewear solution. The duo-flex temples adjust in length and angle. Soft ear pieces provide increased comfort for long-term wear. Clip-in prescription available.

F02



Adjustable temple lengths and angles to fit any head shape and soft ear pieces to prevent painful pressure on the head. The curved frame provides a wide field of view

F03



Lightweight and ergonomic comfort in one. Sporting a modern athletic wrap style, with a very wide field of view and scratch-resistant lenses are ideal for most environments.

F04



An ideal lightweight high-strength plastic frame. Larger lens size make it excellent for fitting over prescription evewear.

F08



Durable Lightweight rubberized eyewear. Larger lens size provides increased viewing and maximum comfort with heavier filters.

F09



Durable lightweight rubberized eyewear. Larger lens size provides increased viewing and maximum comfort with heavier filters. May be used as a fit-over for prescription eyewear.

R10



This reinforced frame is durable and comfortable. Adjustable lengths and angles to fit any head shape and soft ear pieces. May be used as a fit-over for prescription eyewear.

F12



Universal fit with padded goggle rim, vented walls and a wide adjustable elastic strap for comfort. The F12 also has prescription fit-over capability.

F14



This eyewear has a rigid durable plastic body with stratigically placed venting to reduce fogging. This frame fits over prescription eyewear and has an easily adjustable strap.

F16



This wrap style eyewear has the option of an ear piece or an adjustable nylon strap. Feautures adjustable length and angles and soft ear pieces to prevent painful pressure on the head.

F18



Innovative design that features flex temple technology. In addition, its field of view is optimal. Fits over presciption eyewear and has a low weight, which is ideal to fit almost anyone.

F19



Black eyewear that is light weight and durable with soft nose cushioning for real comfort. The glasses fit snuggly with integrated extensions around the eyebrows and cheeks.

F20



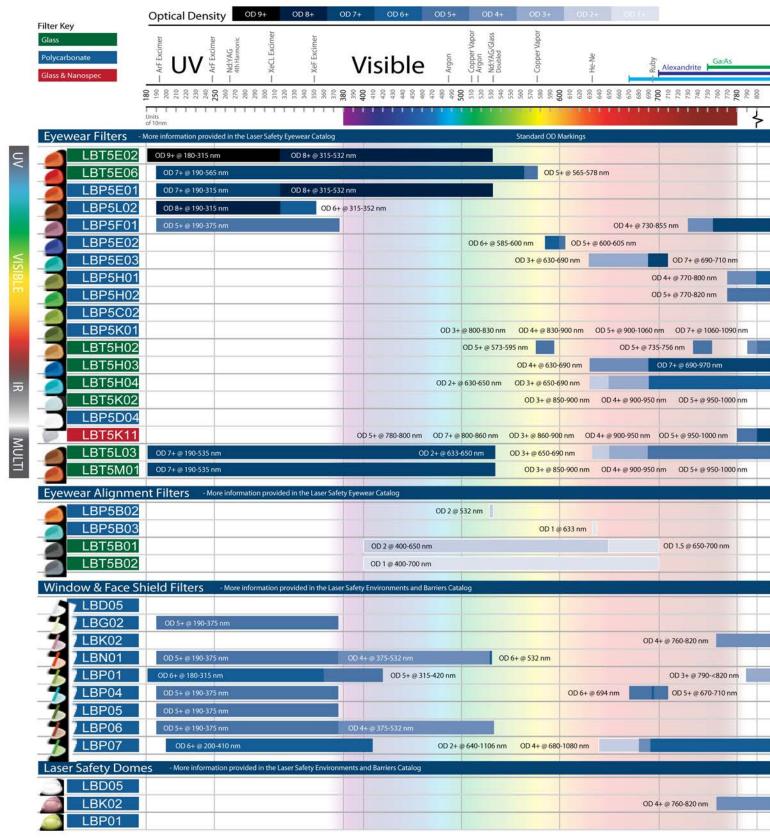
White eyewear that is light weight and durable with soft nose cushioning for real comfort. The glasses fit snuggle with integrated extensions around the eyebrows and cheeks.

F21



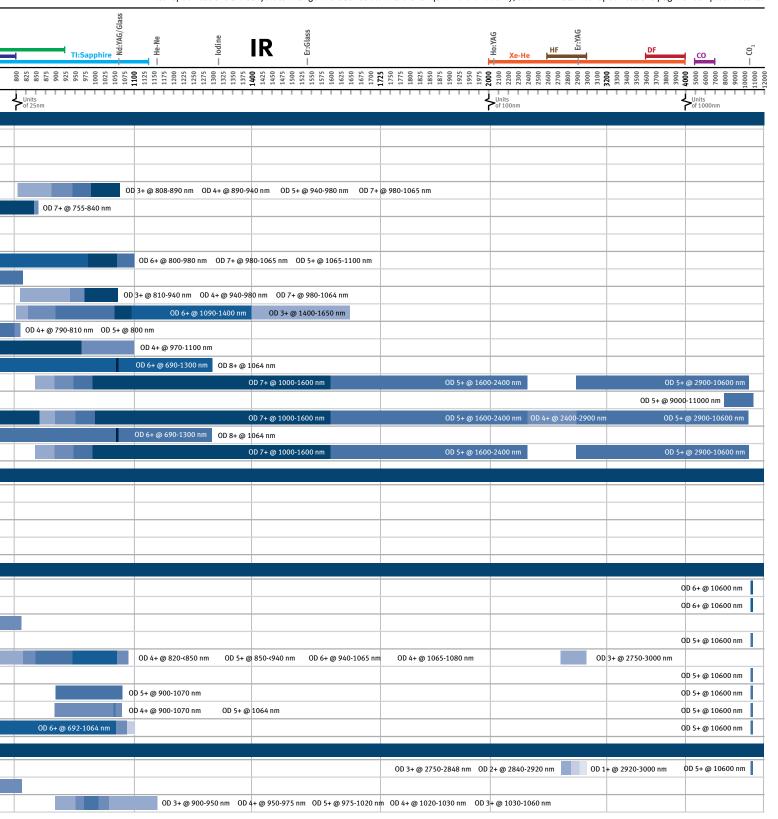
Steel blue eyewear that is light weight and durable with soft nose cushioning for real comfort. The glasses fit snuggly with integrated extensions around the eyebrows and cheeks.

Filter Reference Chart



⁻ Filter colors may vary slightly when viewed in print, on the web, or the actual product.

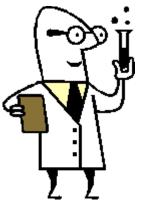












LBI Laboratory Builders, Inc.

Building Labs That Shape The Future
National and International Direct Account
Dealer for Jamestown Metal Products

Phone: 630-598-0216 Fax: 630-598-0218 LabBuildersInc.com