



海纳光学 电话: 0755-84870203
邮箱: sales@highlightoptics.com

NOIR
NOIR

PRECISION. VISION. PROTECTION.



Who we are



We are NoIR InSight, a family-owned business, dedicated to designing and manufacturing specialty eyewear in the United States for over 50 years.



Laser Safety Eyewear

Uniquely engineered filters that help protect people against the dangerous effects of laser light. With a commitment to enhanced safety, we stay ahead of the industry by working directly with laser manufacturers to develop proprietary filters that meet all quality and industry standards.



Low Vision Eyewear

With the largest assortment of low vision filters, we have become the go-to source for people suffering from low-vision conditions such as achromatopsia, macular degeneration, diabetic retinopathy, and cataracts.



Sun Protection Eyewear

Our experience in laser and low vision filters has led us to develop a sunglass line, with a mission to protect people and pets from the harmful effects of UV Rays.

What Drive Us

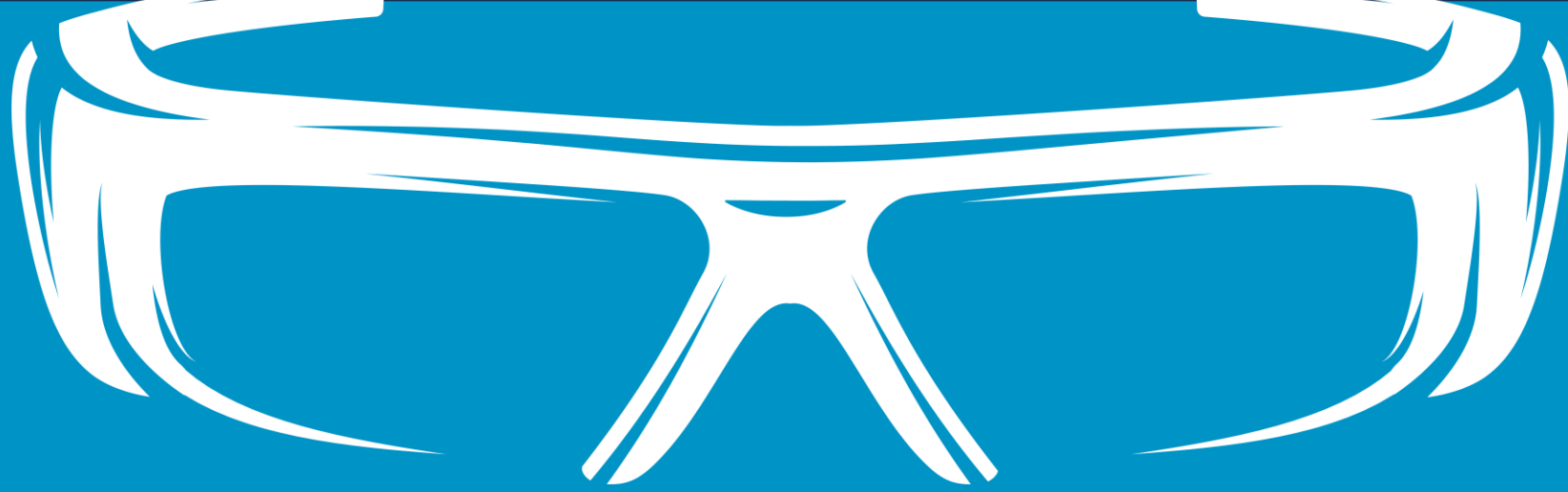


Precision. Vision. Protection.

PRECISION drives our eyewear's meticulous craftsmanship, leaving no room for error. Each product is designed and manufactured with utmost accuracy, exceeding customer expectations for optimal vision performance.

VISION defines our purpose, recognizing the impact of clear sight on our customers' lives. Our eyewear enhances vision, empowering people to face challenges and opportunities with confidence.

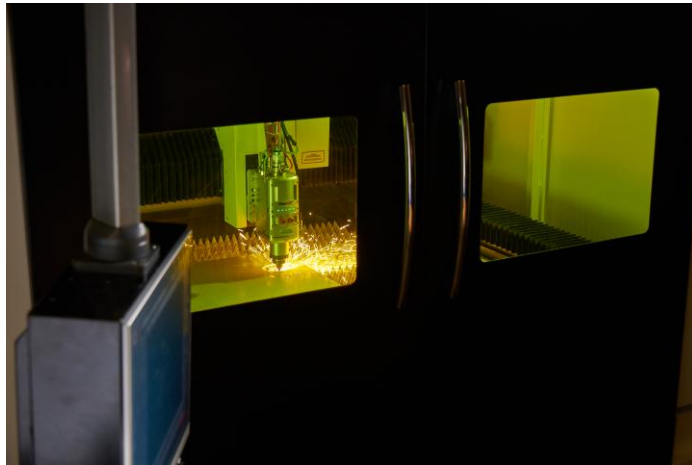
PROTECTION is the pillar of our purpose, safeguarding our customers' eyes from harmful frequencies and providing support for numerous medical conditions. Our eyewear acts as a barrier, ensuring safety and well-being.



Laser Safety Window Recommendations



Why Laser Safety Windows

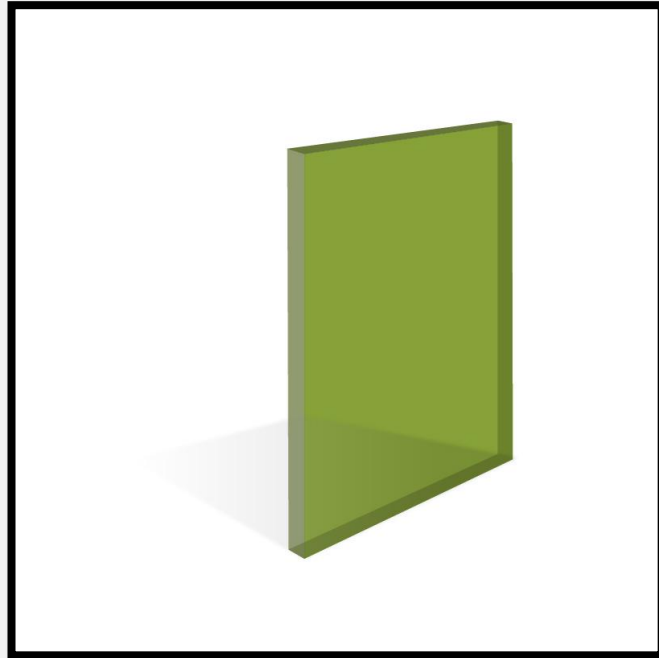


- Acrylic and polycarbonate laser protective windows for safe viewing of laser environments
- Mountable in equipment doors
- Frameable for room doorways and windows

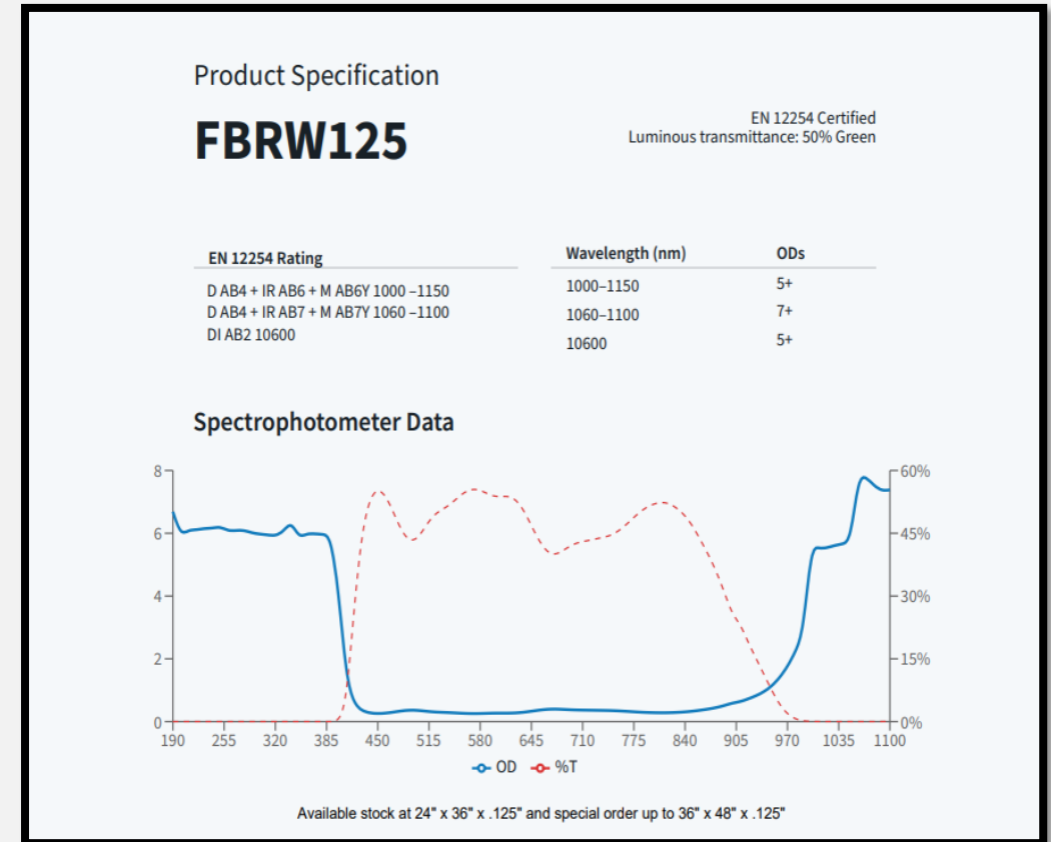


- Standard sizing 24x36" and available as large as 36x48" for select filters
- Custom cuts available
- NoIR can make precision cuts with tight tolerances and special cuts (rounds, drill holes, etc.).

Window FBRW125




- Standard Sheet Size- 24" X 36" X .125" (609.6 X 914.4 X 3.175 mm)
- Special Order Size- 36" X 48" X .125" (914.4 X 1,219.2 X 3.175 mm)
- Available for Custom Cuts
 - Priced in Sq Ft Increments





Window FBRW125


ECS GmbH - European Certification Service


Certificate of Compliance


Herewith, ECS certifies that the product(s)
FBRW125, safety window for protection against laser,
being screen for laser working places
supplied by the company
NOIR Laser Company
4975 Technical Drive
MILFORD, MI 48381
USA

comply with the essential requirements for health and safety. The product meets the requirements for optical and physical properties, laser stability, impact resistance, ignition resistance as they are described in the relevant European standard as indicated below.

Standard / technical rules	EN 12254 : 2010 + AC : 2011
Test report(s)	1236-ECS-23 / MR 12361-ECS-23
Material and specifications	PMMA Thickness: $\geq 3,3$ mm Luminous transmittance D65: 43%
Marking	D AB4 + IR AB6 + M AB6Y 1000 – 1150 D AB4 + IR AB7 + M AB7Y 1060 – 1100 DI AB2 10600 NOIR

This certificate of compliance expires in 2029-03.
The validity of this certificate of compliance (CoC) may be compromised if the manufacturer changes the safety related properties of the product or if the standard referred to is modified or updated.
This certificate only relates to the named test sample. Without permission of the ECS GmbH the related test report shall not be duplicated entirely or in extracts. The test report does not entitle to carry any test mark.
As a recognised and authorised testing laboratory / facility, we hereby authorise the use of our name, address and the identification number 1883 of the notified body ECS in marketing and information material produced by the manufacturer.

ECS GmbH
Notified Body 1883
21/04/24

Dr. Bernhard Schmitz
ECS-Certification

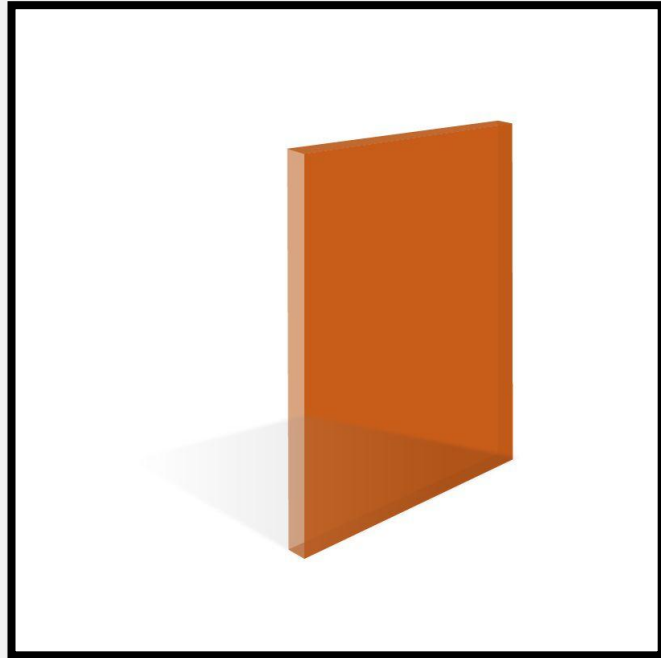

ECS GmbH – European Certification Service
Augenschutz und Persönliche Schutzausrüstung
Laserschutz und Optische Messtechnik
Obere Bahnstraße 74
73431 Aalen, Germany

Compliant with EN 12254 standard

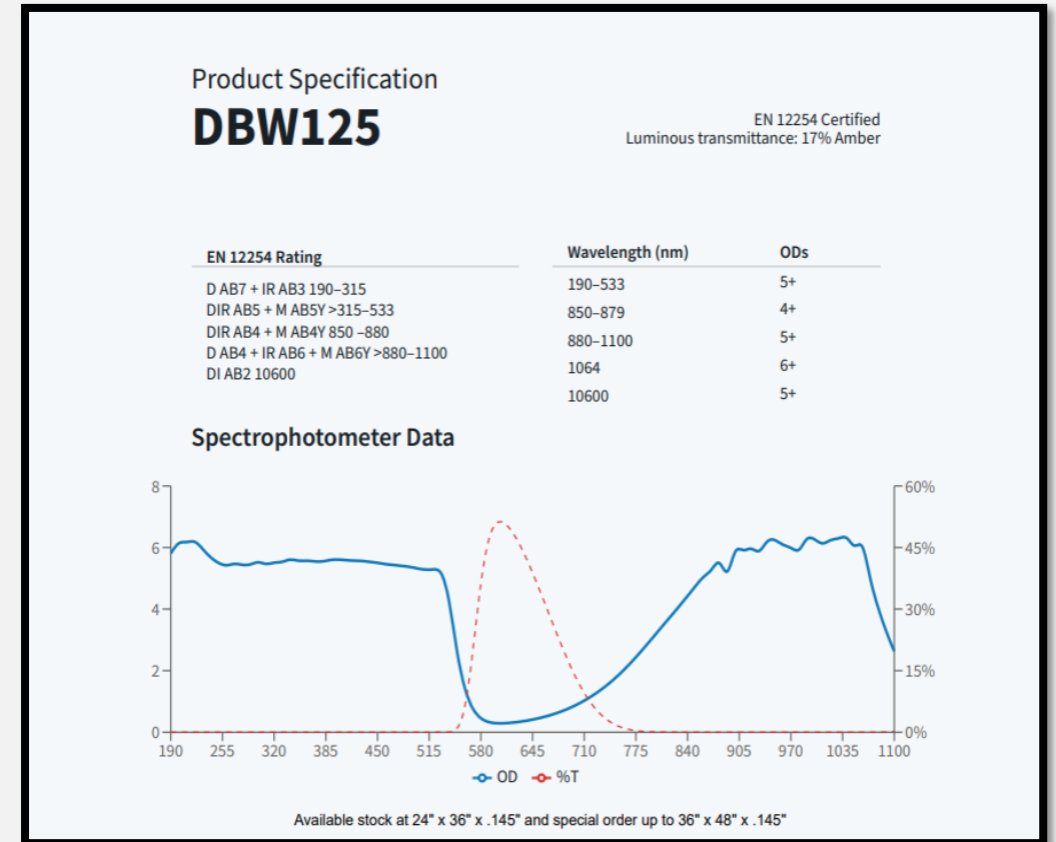
- Attenuates from 1000 nm to 1150 nm for fiber laser cutting, disc lasers (Yb:YAG), marking and welding systems including 1030nm, 1050nm, 1060nm, 1064nm (Nd:YAG), 1070nm, 1080 nm, 1090nm, 1100nm, 1130nm, and 1150nm



Window DBW125




- Standard Sheet Size- 24" X 36" X .145" (609.6 X 914.4 X 3.683 mm)
- Special Order Size- 36" X 48" X .145" (914.4 X 1,219.2 X 3.683 mm)
- Available for Custom Cuts
 - Priced in Sq Ft Increments



Window DBW125




ECS GmbH - European Certification Service


Certificate of Compliance


Herewith, ECS certifies that the product(s)
DBW125, safety window for protection against laser,
being screen for laser working places
supplied by the company
NOIR Laser Company
4975 Technical Drive
MILFORD, MI 48381
USA

comply with the essential requirements for health and safety. The product meets the requirements for optical and physical properties, laser stability, impact resistance, ignition resistance as they are described in the relevant European standard as indicated below.

Standard / technical rules	EN 12254 : 2010 + AC : 2011
Test report(s)	1236-ECS-23 / MR 12363-ECS-23
Material and specifications	PMMA Thickness: ≥ 3.3 mm Luminous transmittance D65: 11%
Marking	D AB7 + IR AB3 190 – 315 DIR AB5 + M AB5Y >315 – 533 DIR AB4 + M AB4Y 850 – 880 D AB4 + IR AB6 + M AB6Y >880 – 1100 DI AB2 10600 NOIR

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Obere Bahnstraße 74
73431 Aalen, Germany

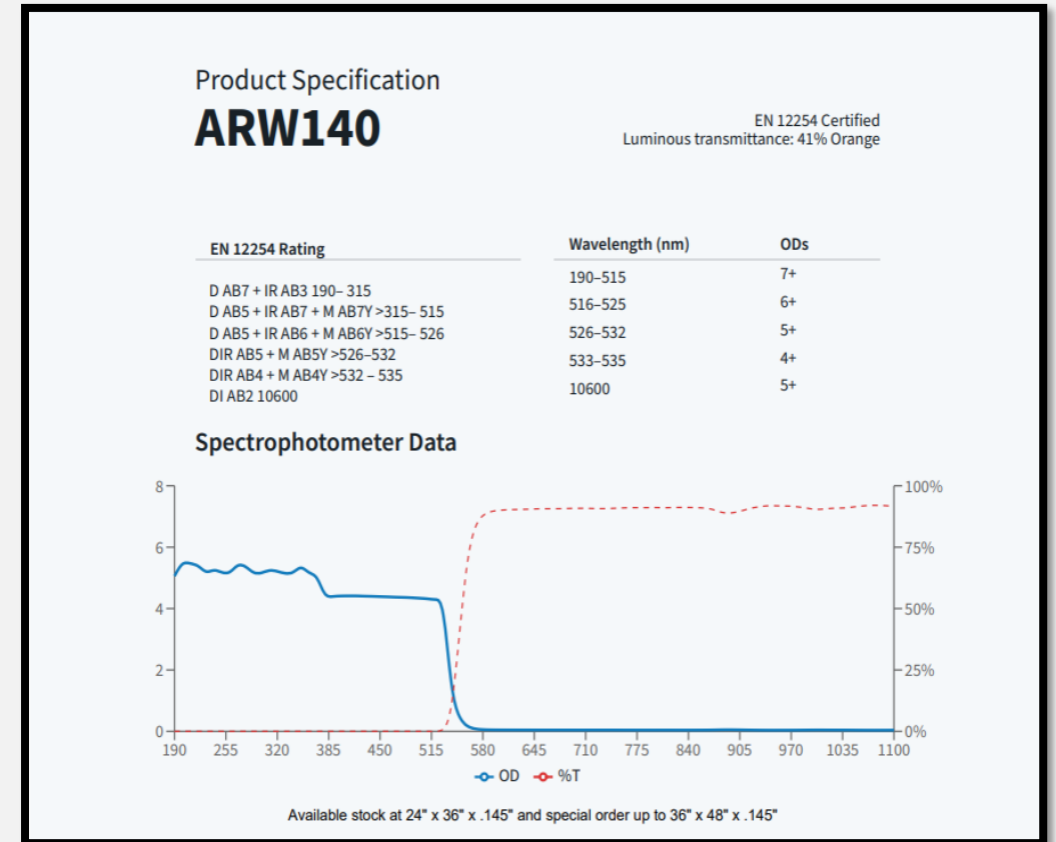
Compliant with EN 12254 standard

- For Nd:YAG (1064nm) and its harmonics: 532nm (second), 355nm (third), 266nm (fourth), 213nm (fifth).
- Coverage also protects laser hazards at 455nm, 488nm, 514nm (Argon), 511nm (Copper Vapor), 532nm (Doubled YAG for KTP therapy), 190nm to 532nm (Excimer, UV Curing, Blue light curing), and 10,600nm (CO₂).

Window ARW140



- Standard Sheet Size- 24" X 36" X .145" (609.6 X 914.4 X 3.683 mm)
- Special Order Size- 36" X 48" X .145" (914.4 X 1,219.2 X 3.683 mm)
- Available for Custom Cuts
 - Priced in Sq Ft Increments





Window ARW140



ECS ★ ★ ★
ECS GmbH - European Certification Service

Certificate of Compliance

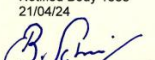
Herewith, ECS certifies that the product(s)
ARW140, safety window for protection against laser,
being screen for laser working places


supplied by the company
NOIR Laser Company
4975 Technical Drive
MILFORD, MI 48381
USA

comply with the essential requirements for health and safety. The product meets the requirements for optical and physical properties, laser stability, impact resistance, ignition resistance as they are described in the relevant European standard as indicated below.

Standard / technical rules	EN 12254 : 2010 + AC : 2011
Test report(s)	1236-ECS-23 / MR 12362-ECS-23
Material and specifications	PMMA Thickness: ≥3.7 mm Luminous transmittance D65: 33%
Marking	D AB7 + IR AB3 190 – 315 D AB5 + IR AB7 + M AB7Y >315 – 515 D AB5 + IR AB6 + M AB6Y >515 – 526 DIR AB5 + M AB5Y >526 – 532 DIR AB4 + M AB4Y >532 – 535 DI AB2 10600 NOIR

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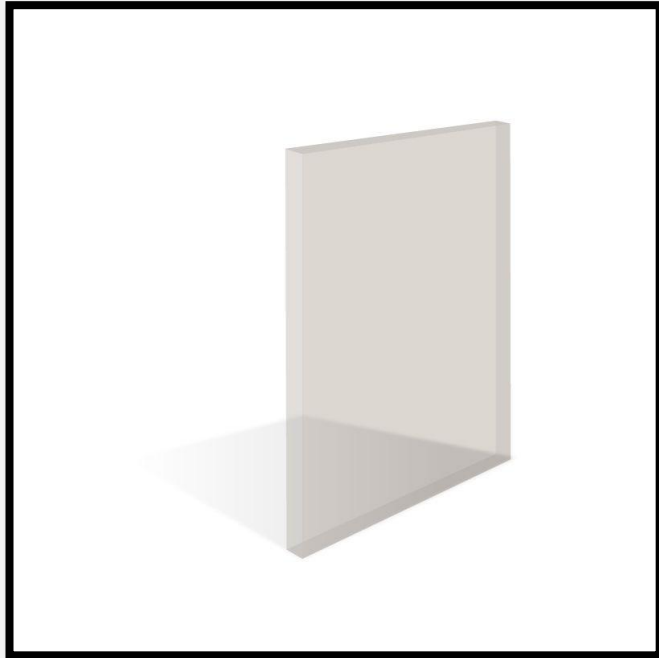
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21/04/24

Dr. Bernhard Schmitz
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Laserschutz und Optische Messtechnik
Obere Bahnstraße 74
73431 Aalen, Germany

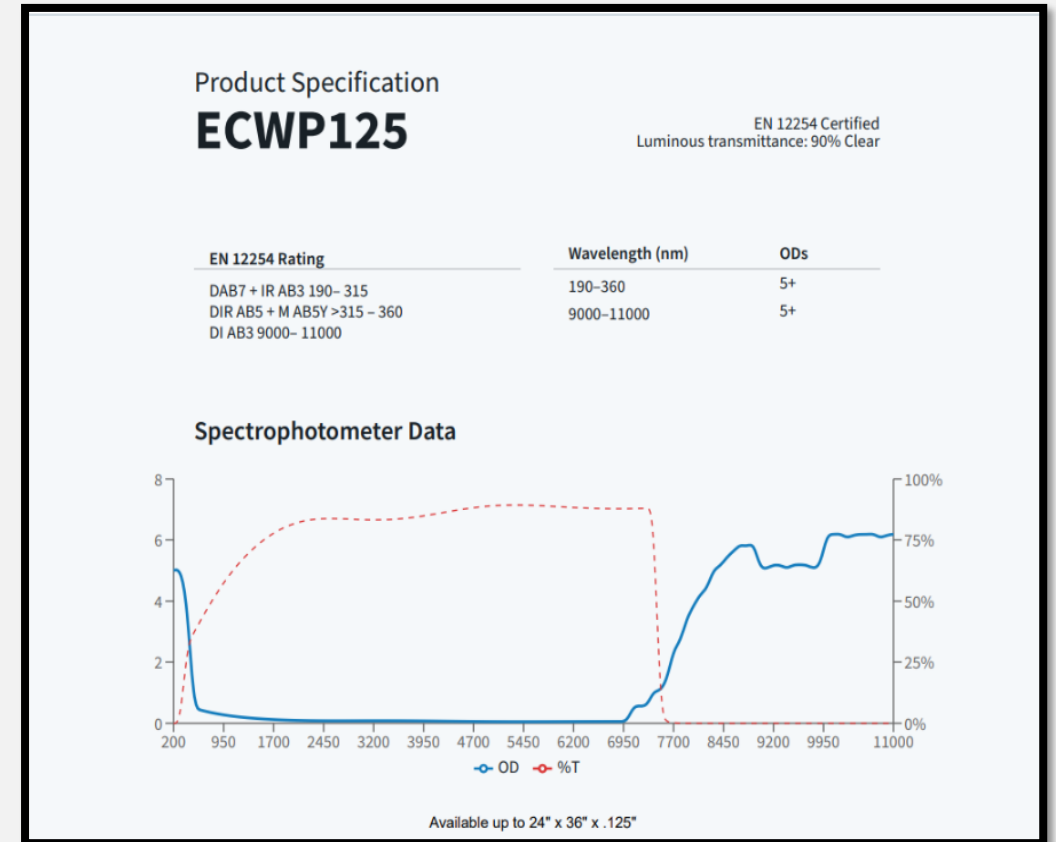
Compliant with EN 12254 standard

- For 532 nm (Doubled Nd:YAG) and KTP laser applications.
- Also protects common wavelengths of: 455 nm, 488 nm, 514 nm (Argon), 511 nm (Copper Vapor), 532 nm, 190 nm to 380 nm (Excimer, UV Curing), 400 nm to 535 nm (Blue Light / Dental Curing).

Window ECWP125



- Standard Sheet Size- 24" X 36" X .125" (609.6 X 914.4 X 3.175 mm)
- Available for Custom Cuts
 - Priced in Sq Ft Increments





Window ECWP125



Certificate of Compliance

Herewith, ECS certifies that the product(s)

ECWP125, safety window for protection against laser,
being screen for laser working places

supplied by the company

NOIR Laser Company
4975 Technical Drive
MILFORD, MI 48381
USA

comply with the essential requirements for health and safety. The product meets the requirements for optical and physical properties, laser stability, impact resistance, ignition resistance as they are described in the relevant European standard as indicated below.

Standard / technical rules EN 12254 : 2010 + AC : 2011

Test report(s) 1236-ECS-23 / MR 12364-ECS-23

Material and specifications Polycarbonate
Thickness: ≥ 3.0 mm
Luminous transmittance D65: 87%

Marking D AB7 + IR AB3 190 – 315
DIR AB5 + M AB5Y >315 – 360
DI AB3 9000 – 11000 NOIR

This certificate of compliance expires in 2029-03.

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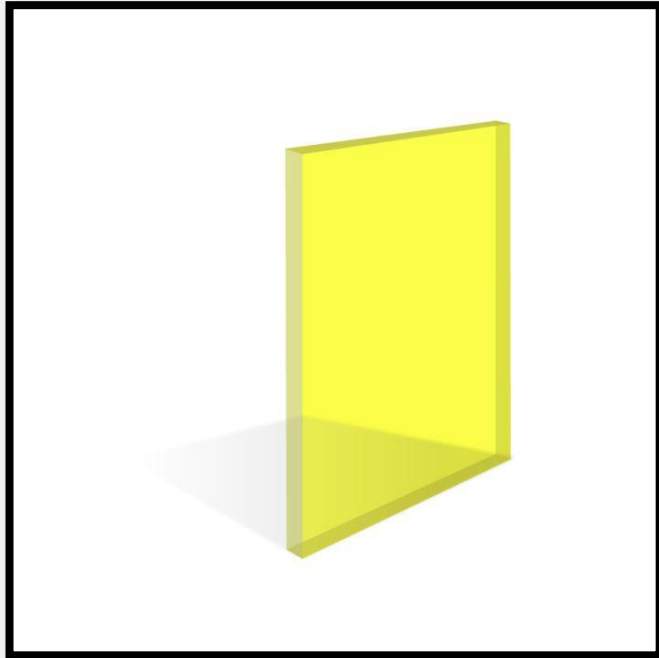
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Augenschutz und Persönliche Schutzausrüstung
Laserschutz und Optische Messtechnik
Obere Bahnstraße 74
73431 Aalen, Germany

Compliant with EN 12254 standard

- For laser hazards at 10,600 nm (CO2) primarily, as well as 200 nm to 360nm (Excimer, UV Curing).



Window YLW125



- Standard Sheet Size- 24" X 36" X .125" (609.6 X 914.4 X 3.175 mm)
- Available for Custom Cuts
 - Priced in Sq Ft Increments

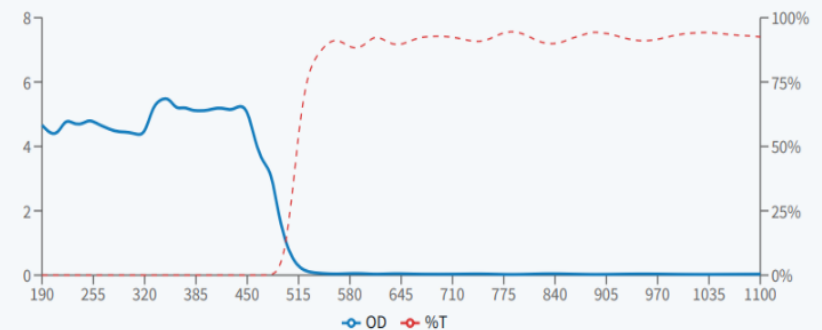
Product Specification

YLW125

EN 12254 Certified
Luminous transmittance: 78% Yellow

EN 12254 Rating	Wavelength (nm)	OD
D AB4 + IR AB3 190-315	190-260	4+
DIR AB4 + M AB4Y >315-325	>260-300	3+
DIR AB5 + M AB5Y >325-450	>300-325	4+
DI AB2 9000-11000	>325-450	5+
	9000-11000	5+


Spectrophotometer Data



Available up to 24" x 36" x .125"

Window YLW125




ECS GmbH - European Certification Service


Certificate of Compliance


Herewith, ECS certifies that the product(s)
YLW125, safety window for protection against laser,
being screen for laser working places
supplied by the company
NOIR Laser Company
4975 Technical Drive
MILFORD, MI 48381
USA

comply with the essential requirements for health and safety. The product meets the requirements for optical and physical properties, laser stability, impact resistance, ignition resistance as they are described in the relevant European standard as indicated below.

Standard / technical rules	EN 12254 : 2010 + AC : 2011
Test report(s)	1236-ECS-23 / MR 12365-ECS-23
Material and specifications	PMMA Thickness: ≥ 3.0 mm Luminous transmittance D65: 78%
Marking	D AB4 + IR AB3 190 – 315 DIR AB4 + M AB4Y >315 – 325 DIR AB5 + M AB5Y >325 – 450 DI AB2 9000 – 11000 NOIR

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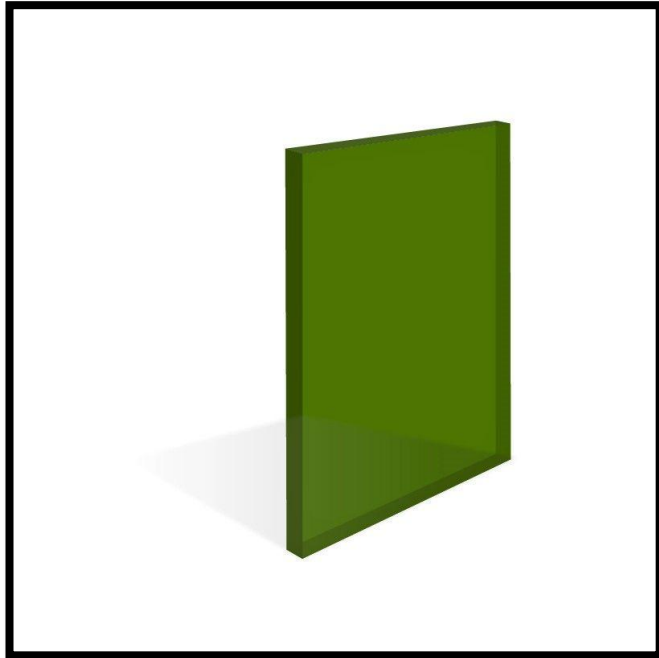
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Laserschutz und Optische Messtechnik
Obere Bahnstraße 74
73431 Aalen, Germany

Compliant with EN 12254 standard

- Protects common wavelengths of 445nm and 450nm, plus 190nm to 380nm (Excimer, UV Curing), 400nm to 450nm (Blue Light / Dental Curing).

Window YAGW125



- Standard Sheet Size- 24" X 36" X .125" (609.6 X 914.4 X 3.175 mm)
- Available for Custom Cuts
 - Priced in Sq Ft Increments

Product Specification

YAGW125 CE Certified
Luminous transmittance: 50% Green

CE Rating	Optical Density																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Wavelength (nm)</th> </tr> </thead> <tbody> <tr><td>D AB8 + IRM AB3 180-315</td></tr> <tr><td>D AB5 + I AB8 + RM AB7 316-428</td></tr> <tr><td>D AB5 + IRM AB6 429-441</td></tr> <tr><td>DIRM AB1 669-713</td></tr> <tr><td>DIRM AB3 740-1115</td></tr> <tr><td>DIRM AB4 761-1102</td></tr> <tr><td>DIRM AB5 779-1050</td></tr> <tr><td>D AB5 + IRM AB7 811-1050</td></tr> <tr><td>D AB5 + I AB8 + RM AB7 828-1050</td></tr> <tr><td>D AB4 + IRM AB5 1050-1092</td></tr> <tr><td>D AB4 + IRM AB6 1050-1084</td></tr> <tr><td>D AB4 + IRM AB7 1050-1077</td></tr> <tr><td>D AB4 + I AB8 + RM AB7 1050-1071</td></tr> <tr><td>D AB2 + IR AB3 2710-2970</td></tr> <tr><td>D AB2 + IR AB3 5370-12000</td></tr> </tbody> </table>	Wavelength (nm)	D AB8 + IRM AB3 180-315	D AB5 + I AB8 + RM AB7 316-428	D AB5 + IRM AB6 429-441	DIRM AB1 669-713	DIRM AB3 740-1115	DIRM AB4 761-1102	DIRM AB5 779-1050	D AB5 + IRM AB7 811-1050	D AB5 + I AB8 + RM AB7 828-1050	D AB4 + IRM AB5 1050-1092	D AB4 + IRM AB6 1050-1084	D AB4 + IRM AB7 1050-1077	D AB4 + I AB8 + RM AB7 1050-1071	D AB2 + IR AB3 2710-2970	D AB2 + IR AB3 5370-12000	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Wavelength (nm)</th> <th>OD</th> </tr> </thead> <tbody> <tr><td>200-400</td><td>7+</td></tr> <tr><td>850-1100</td><td>7+</td></tr> <tr><td>9000-10600</td><td>5+</td></tr> </tbody> </table>	Wavelength (nm)	OD	200-400	7+	850-1100	7+	9000-10600	5+
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9000-10600	5+																								

Spectrophotometer Data

Available stock at 24" x 36" x .125" and special order up to 36" x 48" x .125"

Window YAGW125



LASER OPTICAL DENSITY CERTIFICATION

D AB8

Supplier: NOIR	Cert. Number: 66804B-N
Purchase Order Number: 75094	Date: July 7, 2020
Part ID: A5151G	
Lot: B100	
Color: Green	
Requirements: EN 12254: 2010(E), Paragraph 5.3 Resistance to Laser Radiation, Table 2, 180-315 nm Range.	

TEST PARAMETERS

Coating Type: N/A	Substrate Material: Acrylic
Test Wavelength: 266 nm	Incidence Angle: 0°
Polarization: Linear	PRF : CW
Pulsewidth (FWHM): N/A	Transverse Mode : TEM ₀₀
Spot Diameter (1/e): 1.011 mm	Axial Modes: Multiple
Test Prep: N ₂ blow	Number of Sites: 1
Quantity: 3	Exposure Duration: 100 seconds

TEST RESULTS:

Measurement Level

Samples maintain AB8 during irradiation.

COMMENTS: None.

Spica Technologies certifies that this sample has been exposed to the parameters described above. All test and calibration data are maintained on file. All instrument calibration is traceable to NIST.

Test conducted by 

Spica
Technologies Inc.

18 Clinton Drive #3
Hollis, NJ 07049
www.spicatech.com
603-882-8233

Compliant with EN 12254 standard

- Attenuates from 1000 nm to 1100 nm for fiber laser cutting, disc lasers (Yb:YAG), marking and welding systems including 1064nm (Nd:YAG).
- Affords high absorption for diode and pump lasers from 850-1000nm.

Protection through Innovation



At the heart of our brand lies a passion for precision engineering and a commitment to protecting vision. We are driven by the pursuit of excellence in crafting eyewear that surpasses expectations. Our journey began with a vision to revolutionize protective eyewear, then we expanded to encompass a diverse range of eyewear solutions to improve vision for those with medical issues. We've also created a line to enhance everyday vision. Today, we are a trusted name, providing innovative products that enhance and protect sight.

Our dedication to innovation drives us to continuously push boundaries and explore new frontiers in eyewear technology. We believe that progressive ideas and constant improvement are instrumental in shaping the future of eyewear. By staying at the forefront of advancements, we empower our customers to experience the world with newfound clarity and protection.