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25mm Diameter Uncoated, Yttrium Aluminium Garnet (YAG) Window

Stock **#19-545** **20+ In Stock**

- 1 + **C$516**.60

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Volume Pricing	
Qty 1-10	**C$516.60** each
Qty 11-25	**C$464.80** each
Qty 26-49	**C$438.20** each
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Product Downloads

General

Type:

Protective Window

Physical & Mechanical Properties

Clear Aperture CA (mm):

22.50

Diameter (mm):

25.00 +0.0/-0.1

Thickness (mm):
1.00 ±0.1

Parallelism (arcmin):
<3

Bevel:
Protective as needed

Clear Aperture (%):
90

Edges:
Fine Ground

Poisson's Ratio:
0.28

Young's Modulus (GPa):
300

Knoop Hardness (kg/mm^2):
1,215.00

Optical Properties

Coating:
Uncoated

Substrate:
Yttrium Aluminium Garnet (YAG)

Index of Refraction (n_d):
1.81

Surface Quality:
40-20

Abbe Number (v_d):
56

Axis Orientation:
<100>

Wavelength Range (nm):
210 - 5500

Material Properties

Density (g/cm^3):
4.56

Coefficient of Thermal Expansion CTE (10^{-6}/°C):
8.2

Regulatory Compliance

Certificate of Conformance:
View

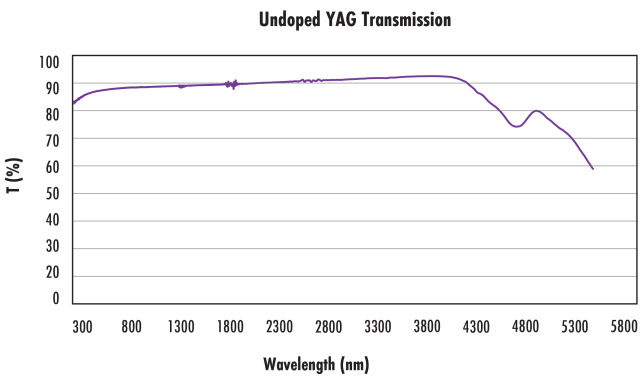
Product Details

- Excellent Mid-Wave IR (MWIR) (4 - 5µm) Transmission
- Available in 5, 10, 12.5, and 25mm Diameters
- Commonly Used in White Light Generation

Pure (Undoped) YAG Windows feature a durable pure Yttrium Aluminum Garnet (YAG) substrate that offers good transmission from 210 – 5500nm in the UV to MWIR spectra. Their high thermal conductivity and excellent optical properties make them suitable for use as protective windows in higher-energy laser systems. These windows produce broadband white light when pumped with an ultrafast laser, allowing for use in femtosecond white light (continuum) generation. Featuring excellent durability and high optical transparency, these windows facilitate precise laser delivery and measurement in medical and industrial laser systems. Pure (Undoped) YAG Windows, unlike sapphire, do not experience transmission dips in the MWIR, making them ideal for use with MWIR illumination sources and Quantum Cascade Laser (QCL) applications.

These windows are ideal for applications requiring a YAG crystal window with high thermal conductivity, mechanical strength, and excellent optical transmission in the 210 – 5500nm range. As an isotropic, chemically stable material, undoped YAG offers minimal birefringence, making it an excellent choice for high-power laser systems, harsh environmental conditions, and UV to IR optical setups. Each YAG crystal window is precision polished to tight surface tolerances for reliable integration into research, industrial, and defense-grade systems.

Technical Information



Special Handling

These optics require special handling to avoid damage and ensure long-term performance. Proper handling, cleaning, and storage are essential to maintain optical quality.

Explore our **Optics Cleaning Resources** for step-by-step guides and best practices. For personalized assistance, **Email us** or **Chat** with our technical support team.

Component Handling Tools

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