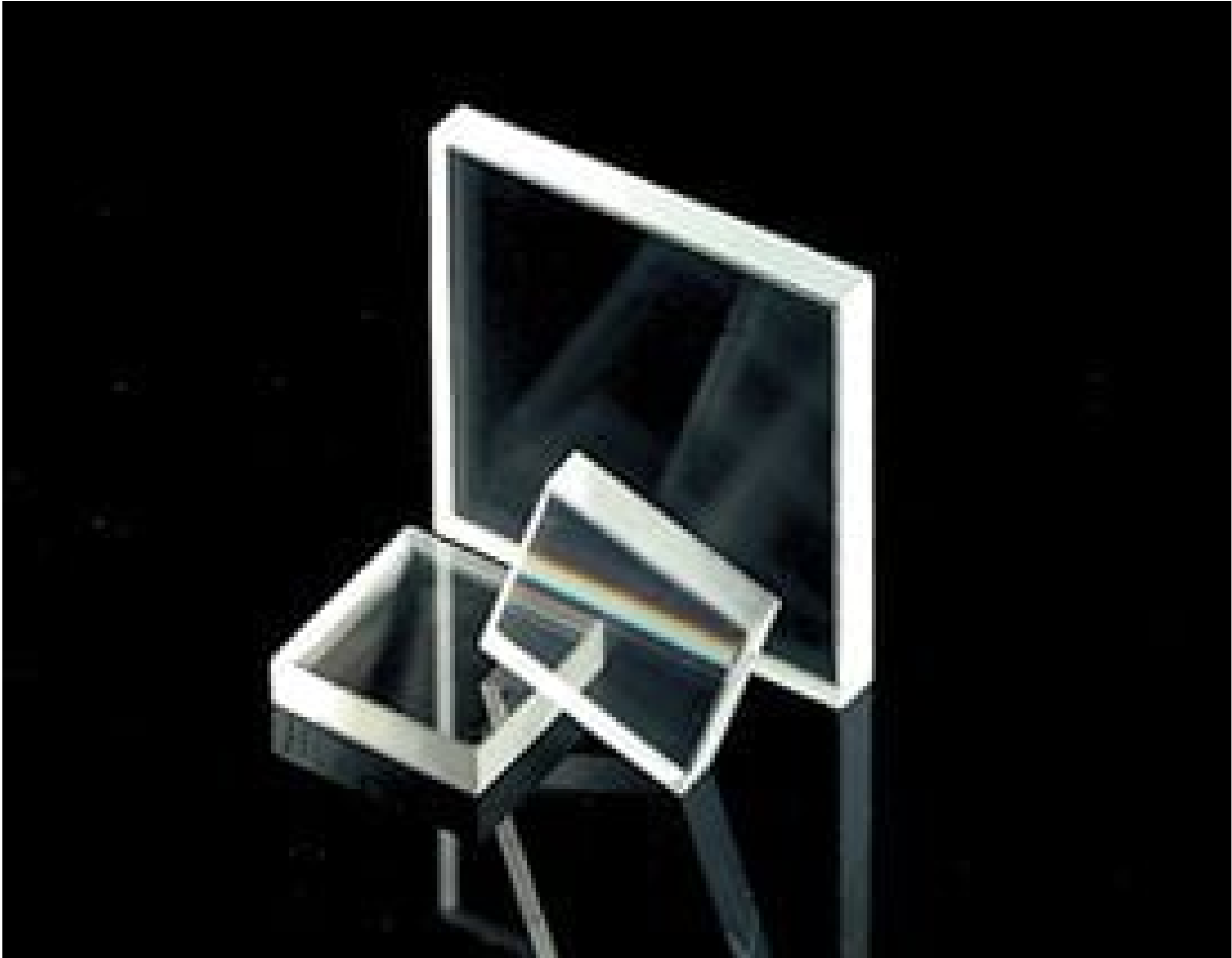


# 110 Grooves/mm, 12.7mm Sq, Transmission Grating Beamsplitter



Stock **#46-073** 5 In Stock

-

1

+

€150<sup>.00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | €150,00 each                  |
| Qty 10-24      | €135,00 each                  |
| Qty 25+        | €112,50 each                  |
| Need More?     | <a href="#">Request Quote</a> |

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Transmission Diffraction Grating

Type:

Physical & Mechanical Properties

12.7 x 12.7 ±0.5

Dimensions (mm):

90

Clear Aperture (%):

|                |                 |
|----------------|-----------------|
| Blazed Grating | Construction:   |
| 12.70          | Length (mm):    |
| 3.00 ±0.5      | Thickness (mm): |
| 12.70          | Width (mm):     |

|                    |                                     |
|--------------------|-------------------------------------|
| Optical Properties |                                     |
| 110                | Groove Density (grooves/mm):        |
| 632.8              | Design Wavelength DWL (nm):         |
| B270               | Substrate: <input type="checkbox"/> |

|                       |                             |
|-----------------------|-----------------------------|
| Regulatory Compliance |                             |
| Compliant             | RoHS 2015:                  |
| View                  | Certificate of Conformance: |
| Compliant             | Reach 247:                  |

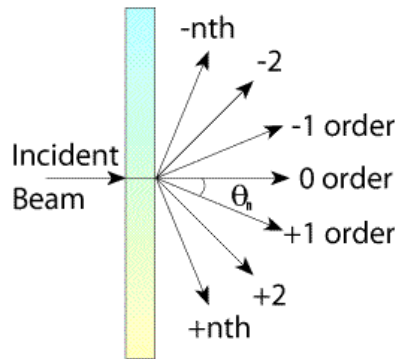
## Product Details

• Ideal for Laser Beam Division  
• Designed for 0 Degree AOI  
• Low Groove Density for Maximized Beam Separation

Transmission Grating Beamsplitters are commonly used for laser beam division and multiple laser line separation in visible wavelengths. The transmitted beam is diffracted into multiple orders. Edmund Optics' transmission grating beamsplitters consist of an index-matched epoxy replica on a polished glass substrate for a high total efficiency. Transmission Grating Beamsplitters are available in several gratings, offering different dispersion and power distributions. The diffraction angle for any wavelength may be calculated using the grating equation for normal incident light.

**Handling Gratings:** Gratings require special handling, making them prone to fingerprints and aerosols. Gratings should only be handled by the edges. Before attempting to clean a grating, please [contact us](#).

## Technical Information



| He-Ne Diffracted Order Typical Distribution @ 632nm (%) |    |    |    |    | Stock No.               |                         |
|---------------------------------------------------------|----|----|----|----|-------------------------|-------------------------|
| 2                                                       | -1 | 0  | +1 | +2 | 12.7mm x 12.7mm         | 25mm x 25mm             |
| —                                                       | —  | 41 | 32 | —  | <a href="#">#46-067</a> | <a href="#">#46-068</a> |
| 5                                                       | 25 | 25 | 25 | 5  | <a href="#">#46-069</a> | <a href="#">#46-070</a> |
| —                                                       | 20 | 45 | 20 | —  | <a href="#">#46-071</a> | <a href="#">#46-072</a> |
| —                                                       | 25 | 28 | 25 | —  | <a href="#">#46-073</a> | <a href="#">#46-074</a> |

A diagram illustrating the diffraction of an incident beam by a transmission grating. The incident beam, labeled "Incident Beam", enters from the left and strikes a vertical grating. The grating is represented by a vertical bar with a color gradient from blue at the top to yellow at the bottom. Several diffracted beams emerge from the grating, labeled as follows from top to bottom: "-nth", "-2", "-1 order", "0 order", "+1 order", "+2", and "+nth". The angle between the incident beam and the 0th order beam is labeled  $\theta_n$ .

## 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

## Compatible Mounts