

## Scratch & Dig Target (1st Surface Negative)



Scratch & Dig Target (1st Surface Negative), #59-156

Stock **#59-156** **3 In Stock**

1 MRP ₹1,05,669

Price inclusive of all taxes

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### Volume Pricing

|            |                               |
|------------|-------------------------------|
| Qty 1+     | ₹1,05,669 each                |
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### Product Downloads

### General

**Note:**  
Standards are for comparing optics against ISO 10110 specifications.

### Physical & Mechanical Properties

Scale Divisions:  
Every 0.025

Scale Length (mm):  
60 ± 0.002

Width (mm):

50.80

Thickness (mm):

1.50

Dot Diameter Tolerance (mm):

±0.002

Line Width Tolerance (mm):

±0.002

Construction:

Black Anodized Aluminum Housing

Housing Tolerance (mm):

±0.2

Length (mm):

114.30

### Optical Properties

Substrate: □

Float Glass

Surface Flatness (P-V):

3-4λ/inch

Surface Quality:

20-10 (inside active area)

Angle of Incidence (°):

45.00

### Regulatory Compliance

RoHS 2015:

Compliant

Reach 209:

Compliant

Certificate of Conformance:

[View](#)

Country of Origin:

United States

Imported By:

Edmund Optics India Private Limited  
267, Greystone Building, Second Floor,  
6th Cross Rd, Binnamangala,  
Stage 1, Indiranagar, Bengaluru,  
Karnataka, India 560038  
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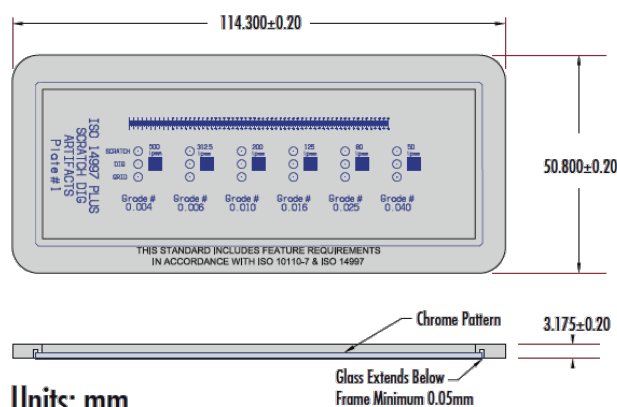
## Product Details

- Feature Requirements in Accordance with ISO 10110-7 & ISO 14997
- First Surface Pattern for System Calibration or Coating Inspection
- Second Surface Pattern for Measuring Surface Defects

NIST Traceable Scratch Dig Standards are ideal for qualifying the scratch and dig surface defects on optical components. In addition to the Scratch Dig markings, there is a 60mm scale, 6 grids varying in size, and 6 blocks of lines with varying frequencies on each plate. The grids can be used to measure the area of irregularly shaped defects. For the NIST Traceable Scratch Dig Standards, the square root of the total defect area for a region is the grade number for that region. The standards are offered as sets of two plates. Plate 1 includes grade numbers ranging from 0.004 to 0.040, while Plate 2 includes 0.040 to 0.400. The first surface sets have the features marked on the top of the glass substrate. The second surface set has the features marked on the bottom of the glass substrate. The features on the positive set are opaque on a clear background. The features on the negative set are clear on an opaque background.

**Note:** Certificate of Compliance is included with each product.

## Technical Information



Units: mm

| Grade No. | Circ. Diameter (µm) | Dim. of Scratch (µm) | Freq. Block (lp/mm) | Grid Block Line W (µm) | Grid Block Line Spacing (µm) |
|-----------|---------------------|----------------------|---------------------|------------------------|------------------------------|
| 0.004     | 4.5                 | 1 x 16               | 500                 | 1                      | 4.5                          |
| 0.006     | 7                   | 1.6 x 25             | 312.5               | 1.6                    | 7                            |
| 0.010     | 11                  | 2.5 x 40             | 200                 | 2.5                    | 11                           |

|       |    |           |     |     |    |
|-------|----|-----------|-----|-----|----|
| 0.016 | 18 | 4 x 63    | 125 | 4   | 18 |
| 0.025 | 28 | 6.3 x 100 | 80  | 6.3 | 28 |
| 0.040 | 45 | 10 x 160  | 50  | 10  | 45 |

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|-----------|---------------------|----------------------|---------------------|------------------------|------------------------------|
| 0.040     | 45                  | 10 x 160             | 50                  | 10                     | 45                           |
| 0.060     | 70                  | 16 x 225             | 31.25               | 10                     | 70                           |
| 0.100     | 110                 | 25 x 400             | 20                  | 10                     | 110                          |
| 0.160     | 180                 | 40 x 630             | 12.5                | 10                     | 180                          |
| 0.250     | 280                 | 63 x 1000            | 8                   | 10                     | 280                          |
| 0.400     | 450                 | 100 x 1600           | 5                   | 10                     | 450                          |