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Scratch & Dig Target (1st Surface Positive)

Scratch & Dig Target (1st Surface Positive), #59-154

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- 1 + **S$1,610**.00

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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

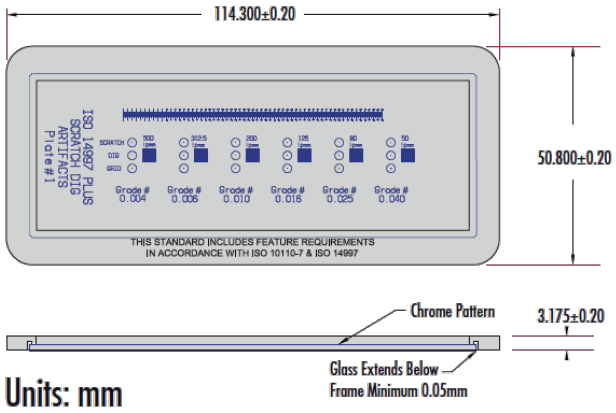
Product Details

- 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



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

Grade No.	Circ. Diameter (µm)	Dim. of Scratch (µm)	Freq. Block (lp/mm)	Grid Block Line W (µm)	Grid Block Line Spacing (µm)
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

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