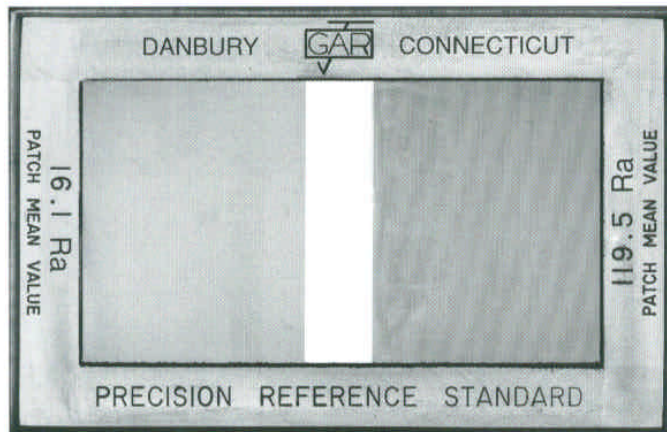


GAR Precision Reference Standard

Individually serialized, calibrated and certified reference standards are also available.

The GAR Precision Reference Standard shows actual patch mean values certified by the National Institute of Standards and Technology.



Shown here actual size.



FACTS & FEATURES...

The Precision Reference Standard is rectangular in shape (2 1/2" x 3 3/4"), made of electroformed nickel and is rhodium plated for superior abrasion resistance.

The Precision Reference Standard is supplied in a leather case and includes certification traceable to N.I.S.T.

Individually serialized, calibrated and certified reference standards are also available.

The GAR Precision Reference Standard provides an economical calibration tool which permits the technician to calibrate surface analyzing equipment to its peak efficiency. It is the only calibration block on the market to show the actual patch mean values of low and high microinch surfaces and certified by the National Institute of Standards and Technology (N.I.S.T.).

The surface of the Precision Reference Standard consists of a series of parallel, uniform, "V-shaped" grooves having an included angle of 150° between the sides. Since the surface character of the Precision Reference Standard is unlike normally machined surfaces, it is not recommended for use in visual or factual comparison.

AREA NO.	PATCH MEAN VALUE	
	16.10 microinches*	119.5 microinches
1	16.20	119.40
2	16.20	119.16
3	15.66	118.10
4	16.00	119.63
5	16.26	119.50

Method of calibration used as reported by N.I.S.T.

The patch mean value identified on the border of the standard is the roughness average (Ra) obtained from five measurements taken in the areas defined in the sketch shown. The sketch applies to both patches by simply rotating the standard 180°. These values represent the average surface roughness of each trace using a 0.0004" (0.010mm) radius diamond stylus and a 0.030" (0.8mm) roughness width cutoff, in accordance to the American National Standards Institute (ANSI)

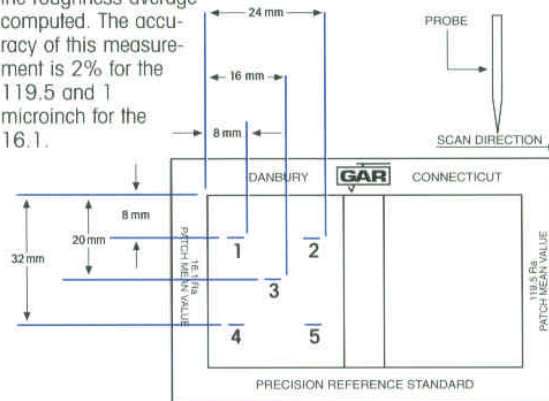
*This patch is intended only for indicating the effective size of the diamond stylus.

specification titled: "Surface Texture, Surface Roughness, Waviness and Lay". ANSI/ASME B46.1

The specimen under test was calibrated by a one-step transfer from the appropriate master using a stylus type instrument. Five measurements were made over each of five areas distributed over the whole specimen.

Report of Calibration by U.S. Department of Commerce, National Institute of Standards and Technology

The property of surface roughness in the 125 microinch range and below is maintained by N.I.S.T. by means of master roughness specimens conforming to ANSI B46.1. The master specimens were calibrated by measuring their surface profile with a stylus instrument which in turn was calibrated by an interferometrically measured step. The areas under the profile curves were then measured and the roughness average computed. The accuracy of this measurement is 2% for the 119.5 and 1 microinch for the 16.1.



FREE Technical Support



This Precision Reference Standard is a product of the engineering skill and precision workmanship of GAR Electroforming Division.

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