



# National Institute of Standards & Technology

## Certificate

### Standard Reference Material 2798

#### Nickel Microhardness Test Block

(Vickers)

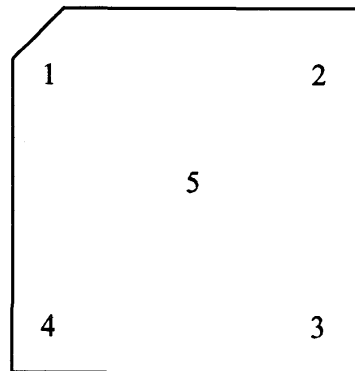
This Standard Reference Material (SRM) is intended primarily for use in calibrating Vickers-type microhardness testers and is certified for average Vickers hardness value at 4.905 N (500 g-f). SRM 2798 consists of a 1.35-cm square test block of electrodeposited bright nickel (approximately 750  $\mu\text{m}$  thick) on an AISI 1010 steel substrate. The block is mounted in thermosetting epoxy.

Test Block No.:

Calibrated by:

\*Date:

Positions of Indentations



Load 500 (g-f)

- 1.
- 2.
- 3.
- 4.
- 5.

Average

\*The date is used for recordation purposes only. There is no need for periodic recertification. The certified hardness values are stable with proper care and handling of the test block.

The average values are certified to be within  $\pm 5\%$  of the true value.

The Vickers hardness measurement was made according to ASTM Test Methods E384 and B578.

Gaithersburg, MD 20899  
August 17, 1993

Thomas E. Gills, Acting Chief  
Standard Reference Materials Program

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Hardness values for this SRM were obtained using a calibrated hardness tester. The optical measuring device of the hardness tester was calibrated with a certified stage micrometer while the loading mechanism was calibrated with a miniature precision load cell that had been previously calibrated with NIST certified weights. The indentations are measured at a total magnification of 600 using a 60X dry lens objective with a numerical aperture of 0.80.

The microhardness test block was fabricated and calibrated in the NIST Metallurgy Division by D.R. Kelley, E.C. Soltani, and C.E. Johnson.

The overall direction of the technical effort leading to certification of this SRM was performed in the NIST Metallurgy Division by D.S. Lashmore; technical coordination was performed in the NIST Metallurgy Division Electrodeposition Group by E.C. Soltani.

The technical and support aspects involved in the certification and issuance of this SRM were coordinated through the Standard Reference Materials Program by N.M. Trahey.