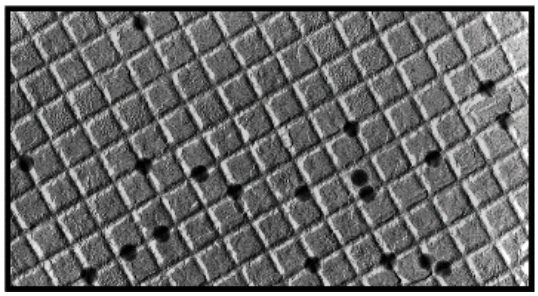
MAGNIFICATION CALIBRATION
LATEX SPHERES ON 463NM DIFFRACTION GRATING REPLICA

Product No. 603

This specimen is a replica of a 2,160 lines/mm cross line diffraction grating on which 262nm diameter latex particles have been applied. When imaging the specimen, it should be kept in mind that the line spacing is 463nm and the pattern will not be visible until the imaging system is set to resolve that level of detail - around x2,500.



To calculate electron microscope magnification:

Take the measurement, in millimeters, between the limiting lines of as many squares of the replica pattern as possible. Apply the following formula:

Magnification = A x 2,160/B

Where "**A**" represents distance in mm between limiting lines of first and last square measured, and

"**B**" represents number of spaces between limiting lines of first and last square measured.

Alternatively, use the online PELCO® Magnification Calibration Calculator by scanning the QR code below:

NOTE: Due to variations in size, the latex particles are not an accurate way of determining instrument magnification (although the calculated figure will be tolerably close to that obtained using the diffraction grating pattern). They serve rather as a useful point of reference for visualizing the appearance of objects at different magnifications and determining the lowest magnification at which structures you are looking for (in another specimen) might be visible.

CARE OF THE SPECIMEN:

When not in use, the replica should be kept in the vial. The replica surface may be damaged if touched. **Never try to clean it**. Care must be taken to avoid bending the grid as distortion may cause the replica film to fracture.

NOTE: ALWAYS VIEW THIS SPECIMEN AT THE LOWEST COMFORTABLE ILLUMINATION LEVEL TO AVOID DEGRADATION OF THE LATEX SPHERES.

TED PELLA, INC.
Microscopy Products for Science and Industry
P.O. Box 492477, Redding, CA 96049-2477, U.S.A
Telephone: 530-243-2200; 800-237-3526 (U.S.A. or Canada) • FAX: 530-243-3761
Email: sales@tedpella.com • Web Site: http://www.tedpella.com