

Cross Grating Replica

AGF7016-7

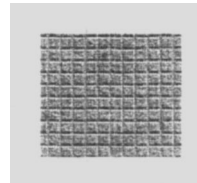
This specimen is a cellulose acetate replica of a 2160 lines/mm waffle pattern diffraction grating. When imaging the specimen it should be kept in mind that the line spacing is 0.463 μ m and the pattern will not be visible until the imaging system is set to resolve that level of detail.

The height of the bars of the grid pattern is approximately 31nm.

To calibrate instrument magnification use the following calculation where A represents the distance in mm between limiting lines of the spaces measured and B represents the number of spaces measured:

$$\text{Magnification} = A \times 2,160 / B$$

(use a scan size of under 10 μ m for best results)



Care of the specimen:

Open the storage box by cutting the white label where the lid and base meet. At all times the surface of the replica must be protected from damage. The replica is mounted on a metal disc which is lying face-down in the storage box. The disc can be removed by carefully inserting forceps under the rim, using the groove provided in the box base. Do not grip more than 1mm into the centre of the disc. Once the disc is removed from the storage box always lay it down with the specimen side facing up. Store the specimen in the original box or a similar container which will protect the surface.

Do not attempt to clean the specimen or remove it from the metal disc.

Never allow the specimen to be exposed to water or solvents.

Note: During the mounting process an area around the extreme outer edges of the specimen may have been damaged. Avoid these areas when using the specimen for calibration purposes.