



TECH REPORT

203:

Application of Lubricant to Loading Stations™ and Cleaning

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Culturing Cells in a Mechanically Active Environment™
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LUBRICANT APPLICATION

Once the Loading Stations™ are placed within the BioFlex® baseplate wells, lubricant should be applied to the tops and sides of the six loading posts on each Loading Station™. Use the Loctite® silicone lubricant supplied with the Loading Stations™. Use your finger to spread an even layer of lubricant over the top and side of each post in sufficient quantity to form a friction barrier. Ensure lubricant is not over-applied, as over-application will form lumps under the membrane, affecting the strain profile. Once cells have been seeded onto the BioFlex® plates and the cells are ready for stretching, place the plates into the red, rubber gasket and then into the baseplate wells atop the Loading Stations™. Place the acrylic cover and about 5 lbs (2 kg) of weight over the top of the plates.

For more information, see *Tech Report 110: Tension Baseplate Assembly*:

http://www.flexcellint.com/documents/110_TensionBaseplateAssemblyTech.pdf,

or the instructional video, *Tension BioFlex® Baseplate Assembly*, accessible on our website:

<http://www.flexcellint.com/videos-instruct.htm>.

NOTE: *For each new experiment, be sure to clean and re-lubricate the Loading Stations™.*

LUBRICANT REMOVAL

Upon completion of a strain regimen, use the following procedure to remove the Loctite® silicone lubricant from the culture plate well bottom to facilitate viewing of the cells with a microscope. Perform this procedure *after* cells are *fixed*:

- 1) Use a dry cotton swab or lint-free wipe to wipe off as much of the excess lubricant as possible. This may take a couple of swabs.
- 2) If a thin film of lubricant still remains on the membrane surface, wet the tip of a new cotton swab with a mild cleaning solution such as Formula 409®, window cleaner, or hand soap. Rub the wet swab gently over the entire surface of the well. Repeat with a fresh cleaning solution as necessary to remove all residual lubricant from the membrane surface.
- 3) Rinse the cleaned surface with deionized water using a spray, wash, or dispensing bottle. Blot the surface dry with a lint-free wipe (e.g. Kimwipe®).

For more information on viewing cells, see *Tech Report 202: Viewing Cells on Flexcell®'s Culture Plates. Light and Electron Microscope Techniques and Immunofluorescent Imaging*:

http://www.flexcellint.com/documents/202_ViewingCellsTech.pdf.