



Optic Cleaning Procedures

1.0 Scope

This document serves as a cleaning procedure for optical elements. The cleaning procedure specifically applies to broadband AR coatings on optical glass, fused silica, calcium fluoride, and silicon.

This procedure should be observed whenever handling optical surfaces. Cleaning of optical surfaces occurs only under the laminar flow hood in the inspection lab.

2.0 Required Supplies

	Catalog, Model/Part number	Supplier
Isopropyl Alcohol (reagent grade, filtered)	S77798	Fisher Scientific www.Fisherscientific.com
Acetone (reagent grade, filtered)	BP2403-4	Fisher Scientific www.Fisherscientific.com
Diluted soap solution,	Neugenic 4175	Rochester Midland
Lint free optical wipes	Opto Wipes	Opto-Alignment Technologies www.optoalignment.com
Nitrile Finger cots, clean room grade	FW01-SMALL MEDIUM, LARGE	CONTEC 864-503-8333
Mask, clean room	BM.1.12	EDMUND OPTIC www.edmundoptics.com
Clean (sub-micron filtered) nitrogen bottle with moisture trap	6.0 RESEARCH	PRAXAIR www.praxair.com
High intensity light source	170-D Dolan Jenner Fibrallight	LABTEK www.labtek.net

Cleaning solvents and soaps are contained in clean, marked poly plunger bottles. Bottles are not to be reused or recycled.



3.0 Heavy cleaning Procedure

Use these steps only if there is significant dirt, deposits or dust on the optical surface. Soap cleaning is not required if only lint or smudges are present on the coating.

Wearing finger cots and mask,

- 3.1 Soak lint free optical wipe with diluted soap solution
- 3.2 Wipe the optical surface in broad sweeps, starting in center of the aperture and working to the edge of the part in a circular motion
- 3.3 Repeat as required by size of optic, each time using a fresh wipe.
- 3.4 Rinse surface with 50/50 acetone/alcohol solution
- 3.5 Go to final cleaning

4.0 Final Cleaning Procedure

Suitable for final cleaning, or for cleaning off minor smudges or lint. Wearing finger cots and mask:

- 4.1 Soak lint free wipe with 50/50 acetone/alcohol only.
- 4.2 Wipe optical surface in circular motion, starting in center and moving to the outer edge in circular motion
- 4.3 Do not drag the wipe over the edge of the part
- 4.4 Do not re-use wipes
- 4.5 Blow dry the surface with nitrogen hose, keeping the nozzle 4-6 inches from the optic.
- 4.6 Inspect under high intensity light source for streaks.
- 4.7 Repeat as required.

****Effective 01 July 2009 Coastal Optical Systems became JENOPTIK Optical Systems, Inc. and remains a Florida Corporation.****