

cleaning information for colorPol[®] polarizers

colorPol[®] polarizers products are packed and delivered in clean condition, but over the course of time the surfaces may have minor, uncritical contaminations caused by transport or other circumstances. This document provides fundamental recommendations for the effective cleaning of colorPol[®] polarizers. They are valid for all colorPol[®] polarizers (unlaminated, laminated, not AR coated and AR coated).

Principally all typical cleaning materials (e.g. isoprohyl, distilled water etc.) and cleaning utensils can be used without hesitations, which are suited for glass.

Especially a further processing of colorPol[®] polarizers can require an intense and effortful cleaning. We recommend to notice the following comments for this purpose:

1. Dust and / or other surface lying particles → dry cleaning

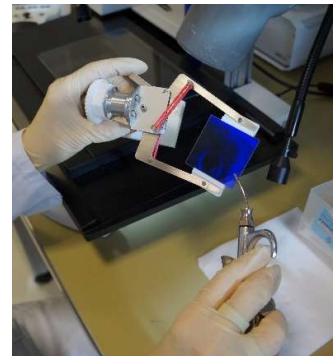
cleaning utensils:

- powder-free latex gloves (one-way), mouth guard
- tweezer for handling of the polarizers, mounting device
- clean compressed air, alternatively hand bellows
- hard, sharp cotton swaps (lint-free)



procedure:

- prepare equipment (clean tweezer, put gloves and mouth guard)
- At first blow away the particles through air jet. The polarizer must be fixed safely (depending on the intensity of the airflow).
- If necessary, lift up the remaining particles with a clean and hard cotton swap (with as low as possible contact to the glass surface).



2. Stains, contaminations (e.g. finger prints, reams) → chemical wet cleaning

equipment:

- powder-free latex gloves (one-way), mouth guard
- tweezer for handling of the polarizers, mounting device
- soft cotton swaps (lint-free)
- chemicals:
 - o 2-Butanon (MEK, Methyllethylketon)
 - o Ethansäure (acetic acid, CH_3COOH , percentage of acid 25-30%)
- mixture from MEK (50 ... 85%) and acetic acid (50 ... 15%), best mixture ratio depending on contamination



procedure:

- prepare equipment (clean tweezer, put gloves and mouth guard)
- remove colorPol[®] polarizers from packaging for cleaning (chemicals can affect the packaging)
- At first perform cleaning try with pure MEK. If it is not successful, use mixture from MEK und acetic acid.
- procedure of wet cleaning with chemicals:
 - Moisten the soft, lint-free cotton swap with cleaning solution.
 - Cotton swap must not be dripping wet, when necessary wipe the remaining cleaning solution on a clean, lint-free (cleanroom) cloth.
 - Wipe the colorPol[®] polarizers from middle to edge with cotton swap. Do not apply pressure. (If the cleaning solution does not dry off quick enough and it generates drops, the cotton swap is still too moisty.)
 - Using a cleaning mixture with high part of acetic acid it might be necessary to immediately wipe dry with pure MEK (second cotton swap).



General handling:

- If possible, only grasp the colorPol[®] polarizers on the corner or on the edge with the tweezer
- Clean the tweezers periodically to remove glass dust and general contaminations

Version 01/2020