

Cleaning Materials

cleaning material	pH	basic material	dilution	cleaning type	price EUR/ltr 100% concentration
OXAPA Cleaner HRM 04	7	hydrocarbon	prohibited	cleaning by hand	95
OXAPA Cleaner USM	-	ethylpyrrolidon	prohibited	for ultrasonic cleaning	by request
OXAPA Cleaner USS	11	surfactants	allowed	for ultrasonic cleaning	by request
OXAPA Cleaner US14	14	alkalies	allowed	for ultrasonic cleaning	by request
OXAPA Cleaner US11	11	alkalies	allowed	for ultrasonic cleaning	by request
OXAPA Cleaner US10	10	alkalies	allowed	for ultrasonic cleaning	by request
OXAPA Cleaner US2	2	acids	allowed	for ultrasonic cleaning	by request
OXAPA Cleaner USF9	9	alkalies	allowed	for ultrasonic cleaning	by request
OXAPA Cleaner USF6	6		allowed	for ultrasonic cleaning	by request

OXAPA Cleaner HRM 04 is developed for effective cleaning by hand of polished or coated optical elements in clean room conditions under ventilation. It is suitable for application for all glass types and can be used together with cleaning swabs.

OXAPA Cleaner USM is developed for cleaning of optical glasses or polished optical elements in ultrasonic bath directly after processing in case of strong pollution with pitches, waxes, lacquers. It is prohibited to dilute **OXAPA Cleaner USM**. After **OXAPA Cleaner USM** is applied, the optical glasses or polished optical elements should be cleaned in **OXAPA Cleaner USS** (effective concentration 3-5%). The last cleaning material removes the rests of methylpyrrolidon from the surface. Afterwards the items should be rinsed in tap water and are suitable for further processing or for storage. The both cleaning materials are suitable for application with all glass types.

The application of **OXAPA Cleaner USM** with kitted parts (e. g. achromatic lenses, beam splitting cubes etc.) leads to the separating of the parts. This effect is useful, if it is necessary to separate kitted parts.

OXAPA Cleaner US14, OXAPA Cleaner US11, OXAPA Cleaner US10, and OXAPA Cleaner US2 are applied for cleaning of optical elements after processing with OXAPA Cleaner USM + OXAPA Cleaner USS or after storage, followed by rinsing in tap water. Directly afterwards the optical elements should be cleaned with **OXAPA Cleaner USF9** or **OXAPA Cleaner USF6**, followed by rinsing in deionized water and drying. The effective concentrations of the materials are 1-5% defined separately by specific characteristics of each cleaning process. The materials are modified to be compatible with corresponding glass families shown in the Abbe-diagram below.

