



PRECISION OPTICS



ECOLOGICAL CLEANING SOLUTIONS

 SWISS QUALITY



CLEANING AND SURFACE PREPARATION

Quality, reliability and expertise, applied to the surface preparation of photographic crown and flint glass prior to coating and/or assembly

MATERIAL COMPATIBILITY

CROWN GLASS*

- FK
- PK
- BK
- BaK
- Borosilicate
- Fused silica

- SK
- K
- LaK
- SSK
- ZK

FLINT GLASS*

- BaLF
 - KF
 - LaSF
 - LaF
 - BaF
 - BaSF
- LLF
 - LF
 - F
 - SF
 - KzFS

* N- type glass (lead and arsenic free)

TYPE OF PARTS

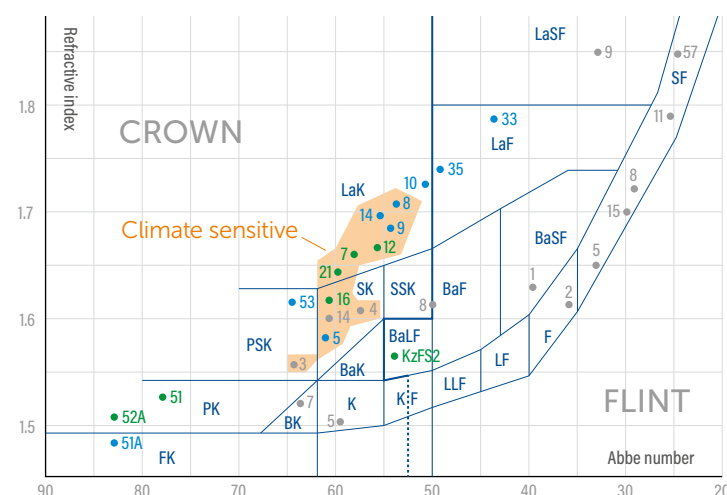
- Lenses:
 - Spherical, aspherical
 - Concave, convex
 - Planoconvex
- Mirrors
- Prisms

POLLUTIONS

- Abrasives
- Cutting oil
- Blocking glue
- Pitch
- Finger marks
- Dust, particles

CONTACT NGL PRIOR TO ANY PROCESS SET UP ON HIGHLY SENSITIVE GLASS:

- **Phosphate sensitive**
 - LaK: 8, 9, 10, 14
 - LaF: 33, 35
 - SK: 5
 - PSK: 53
 - FK: 51A
- **Alkali + Phosphate sensitive**
 - LaK: 7, 12, 21
 - SK: 16
 - PK 51, 52A
 - KzFS : 2
- **Climate sensitive**



SOLVENT, DETERGENTS, FINISHING

PRODUCTS	pH	TYPE	FUNCTION	APPLICATION/POLLUTION
ALLSTRIP	N.A.	Solvent	Ultrasonic cleaning	Blocking glue, pitch
DECOCLEAN 540 ^{1 2}	13.9	Detergent	Ultrasonic or spray cleaning	Cutting oil
OPTICAL 2021 ²	14		Ultrasonic cleaning	Abrasives, organic residues
OPTICAL V	14			Light pollutions, finger marks, particles
NANOCLEAN 2018 ²	9.5			Hydrophilic finish
GL 801 S	6.7	Finishing	Ultrasonic cleaning	Antistatic Finish
OPTICAL 10 L ²	5.5			
PRECIOPTIC 18.22 ²	10.5			

¹ Requires an oil separator

² Phosphates free

SUPPORT

- **NGL Academy:** training on precision cleaning, passivation, water treatment, and HSE regulation
- **Application Centre:** various cleaning systems and wide range of analytical tools for all types of tests
- **Worldwide and local implementation**

ISO CERTIFICATION*

- ISO 9001 - Quality
- ISO 14001 - Environment
- ISO 45001 - Health and safety at work

*Applicable to the production site at NGL Cleaning Technology SA

SOLVENT

for the removal of pitch and blocking glues

ALLSTRIP

High flash point solvent for the removal of blocking glues and pitch polishing residues.



STRONG ALKALIS

for heavy pollutions

DECOCLEAN 540

Strong alkaline, **phosphate-free**, non-foaming detergent, for the removal of dicing oil and polishing abrasives in ultrasonic processes. Requires an oil separator for the removal of neat oil.

OPTICAL 2021

Strong alkaline, **phosphate-free** detergent, that includes a solvent for the removal of blocking glue, pitch and polishing abrasives in ultrasonic processes.

OPTICAL V

Strong alkaline detergent, for the removal of polishing abrasives in ultrasonic processes.



MILD ALKALINE AND FINISHING

for sensitive alloys and finishing

NANOCLEAN 2018

Mild alkaline, **phosphate-free** and low conductivity detergent, for the elimination of light pollution. Free rinsing for hydrophilic finish.

PRECIOPTIC 18.22

Mild alkaline, **phosphate-free** and low conductivity detergent, for the elimination of light pollution. Free rinsing product with antistatic finish on the surface to avoid the deposition of particles.

GL 801 S

Superfinish hydrophilic product for ultrasonic processes (pH-neutral). Extreme free rinsing, which will leave no residues on parts.

OPTICAL 10 L

Free rinsing **phosphate free**, acid finish for ultrasonic processes. To neutralize alkaline residues and leave a hydrophilic surface.



EQUIPMENT

With our **UPC 3000**, ensure on a daily basis that your equipment is properly set up:

- Measurement of ultrasonic power in Watts/L
- Measurement of the conductivity
- Temperature measurement
- Detergent concentration measurement
- Measuring the quality of demineralized water (0.001 μ S/cm to 200 μ S/cm)





CLEANING AND SURFACE PREPARATION

Quality, reliability and expertise, applied to the surface preparation of IR and UV optics prior to coating and/or assembly

MATERIAL COMPATIBILITY

- UV:
 - UV Fused Silica,
 - Calcium Fluoride (CaF₂),
 - Magnesium Fluoride (MgF₂)
 - Sapphire
- IR:
 - Calcium Fluoride (CaF₂)
 - Fused Silica (SiO₂)
 - Germanium
 - Magnesium Fluoride (MgF₂)
 - Sapphire (Al₂O₃)
 - Silicon (Si)
 - Zinc selenide (ZnSe)
 - Zinc Sulfide (ZnS)
 - Chalcogenides

TYPE OF PARTS

- Lenses:
 - Spherical
 - Aspherical
 - Concave
 - Convex
 - Planoconvex
- Mirrors
- Prisms

POLLUTIONS

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- Cutting oil
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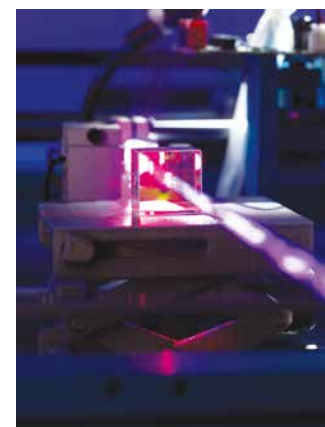
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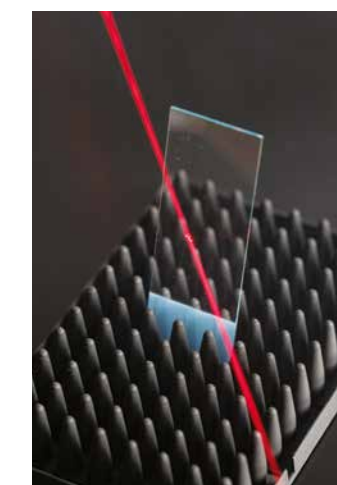
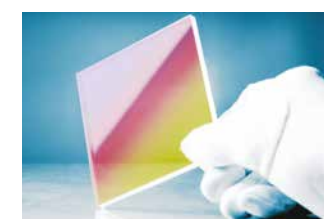
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CLEANING AND SURFACE PREPARATION

Quality, reliability and expertise, applied to the surface preparation of low thermal expansion materials, prior to coating and/or assembly

MATERIAL COMPATIBILITY

- Silicon (Si)
- Sapphire
- Fused silica
- Quartz
- Zerodur®
- ULE® Ultra Low Expansion Glass
- BOROFLOAT®33
- N-BK7®
- Beryllium

TYPE OF PARTS

- Lenses
- Mirrors
- Prisms
- Wafers
- Gyrolaser casings

POLLUTIONS

- Abrasives
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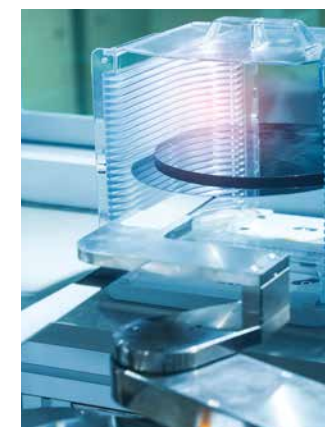
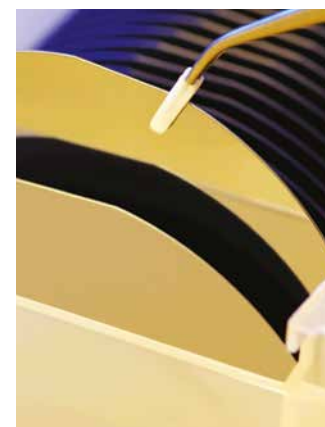
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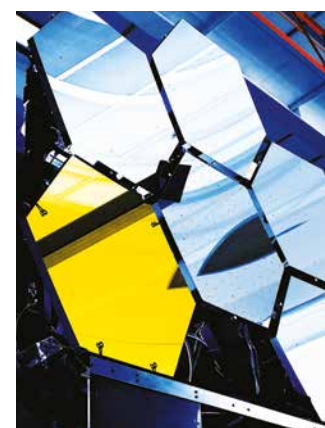
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07/06/2023



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