

# PRECISION OPTICS



FROM

# CLEANING AND SURFACE PREPARATION

Quality, reliability and expertise applied to surface preparation of Crown and Flint precision lenses, IR and UV lenses and low thermal expansion materials prior to coating and/or assembly.

## MATERIAL COMPATIBILITY

K

LaK

ZK

silica

LLF

LF

F

SF

KzFS

SOLVENT, DETERGENTS, FINISHING

N.A.

13.9

14

14

9.5

6.7

5.5

10.5

pH TYPE

Solvent

Detergent

Finishing

<sup>2</sup> Phosphates free

#### CROWN\*

- FK
- PK
- BK SSK
- BaK
- Borosilicate
   Fused
- SK
- FLINT\*
- BaLF
- KF
- LaSF
- LaF
- BaF
- BaSF

**PRODUCTS** 

DECOCLEAN 540<sup>1 2</sup>

NANOCLEAN 2018<sup>2</sup>

PRECIOPTIC 18.22<sup>2</sup>

<sup>1</sup> Requires an oil separator

OPTICAL 2021<sup>2</sup>

**OPTICAL V** 

GL 801 S

OPTICAL 10 L<sup>2</sup>

**ALLSTRIP** 

\* N- type glass (lead and arsenic free))

### UV

- Fused Silica (SiO<sub>2</sub>)
  - Calcium Fluoride (CaF<sub>2</sub>)
  - Magnesium Fluoride (MgF<sub>2</sub>)
  - Sapphire

#### IR

- Calcium Fluoride (CaF<sub>2</sub>)
- Fused Silica (SiO<sub>2</sub>)
- Germanium
- Magnesium Fluoride (MgF<sub>2</sub>)

FUNCTION

Ultrasonic cleaning

Ultrasonic cleaning

Ultrasonic or spray cleaning

- Sapphire (Al<sub>2</sub> O<sub>3</sub>)
- Silicon (Si)
- Zinc selenide (ZnSe)
- Zinc Sulfide (ZnS)
- Chalcogenides

#### . .

- LTE MATERIALS\*
- Silicon (Si)Sapphire
- Fused Silica (SiO<sub>a</sub>)
- Quartz
- Zerodur®
- ULE® Ultra Low Expansion Glass
- BOROFLOAT®33
- N-BK7®
- Beryllium
- \* Low thermal expansion materials

# TYPE OF PARTS

- Lenses:
- Spherical
- Aspherical
- Concave
- Convex
- Planoconvex
- Mirrors
- Prisms
- Wafers
- Gyrolaser casings

# POLISHING FOR SENSITIVE SUBSTRATES

**ABRASIVES** 

ELIMINATION OF CUTTING OILS FOR

• Process: Ultrasonic removal of cutting oil after cutting and

DECOCLEAN 540 and NANOCLEAN 2018

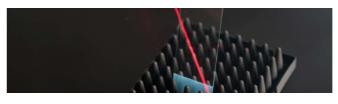
**NON-SENSITIVE SUBSTRATES** 

beveling sapphire glass.

REMOVING

NANOCLEAN 2018, PRECIOPTIC 18.22 and OPTICAL 10L

Process: Removal of cerium oxide after polishing Germanium, Silicon, Zinc selenide optics...



# REMOVING BLOCKING GLUE ALLSTRIP and OPTICAL 2021

Process: Ultrasonic removal of fusible adhesives after polishing plano-convex lenses.



# REMOVAL OF ABRASIVE POLISHING FOR NON-SENSITIVE SUBSTRATES OPTICAL V and OPTICAL 10L

Process: Removal of cerium oxide after double-sided polishing on BK-7 and Quartz glasses.



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

# Phosphate sensitive

- LaK: 8, 9, 10, 14

- LaF: 33, 35

Eui . 55, 5.

SK: 5PSK: 53

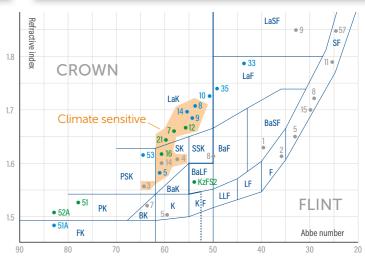
– LaK: 7, 12, 21 – SK: 16

Alkali + Phosphate sensitive

– PK 51, 52A – KzFS : 2

– FK: 51A

Climate sensitive



# **SUPPORT**

- NGL Academy: training on precision cleaning, passivation, water treatment, and HSE regulation
- Application Center: 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

APPLICATION/POLLUTION

Abrasives, organic residues

Light pollutions, finger marks, particles

Blocking glue, pitch

Hydrophilic finish

Antistatic Finish

Cutting oil

Applicable to the production site at NGL Cleaning Technology SA



Find all our products and application notes specific to precision optics on our website.



# **OUR SUBSIDIARIES AROUND THE WORLD**

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