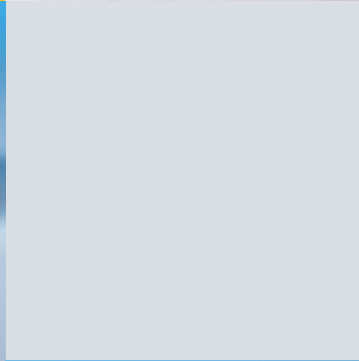


Consumables & Tools



Contents

Coolants	.....	2
Emeries	.....	6
Polishing Compounds	.....	8
Polishing Support	.....	14
Cements, UV-Cements, Adhesives	.....	19
Protective Agents	.....	25
Cleaning Agents	.....	27
Working Aids, Equipment	.....	33
Diamond Tools	.....	38
Diamond Suspensions , Polishing Cloths	.....	43
Coating	.....	46

Coolant Additive K 40



Water-mixable coolant concentrate, containing mineral oil, for grinding and lapping of optical elements with sintered and electroplated diamond tools in ophthalmic and precision optics.

Technical Data

- Color: yellow
- pH-value: 9.6 (at 5%)
- Kinematic viscosity: about 1750 (cSt) mm²/s
- Refractometer factor: 1.25

Benefits

- High stock removal
- Excellent surface quality
- Free from chlorine, nitrite, phenol and PCB
- Usable in a wide field of application

Recommendations

- Before switching over from any other coolant additive to K 40, please clean thoroughly machines, tubes, pumping and coolant systems.
- Please check coolant suspension regularly with a hand refractometer, and if necessary, add K 40.
- In order to avoid foaming the return tube should be placed beneath the surface of the coolant. If foam forms in spite of that, add defoamer E 100 or K 43.
- Store away from frost.

Applications

Working process	Satisloh diamond tool	Concentration	Temp.
Pre-grinding	wheels – all metal and plastic bonds	6%	<20°C
Pre-grinding	wheels, electroplated bonds	2,5%	<20°C
Pre-grinding	flat-grind tools with toothed smoothing rings	3%	<20°C
Pre-grinding	diamond pellets or segments	3%	<20°C
Formgrinding	electroplated bonds	3%	<20°C
Rounding	rounding tools	3%	<20°C
Sawing	saw blades	5%	<20°C
Lapping	pellets & diamond pads	3%	<20°C
Centering	centering wheels	3%	<20°C
Bevelling	bevel sections	3%	<20°C

Packing Unit

		Order No.
Coolant additive K 40	200-kg-barrel	92-000-001
Coolant additive K 40	60-kg-barrel	92-000-002
Coolant additive K 40	25-kg-can	92-000-003
Coolant additive K 40	5-kg-can	92-000-005
Coolant additive K 40	10-kg-can	92-000-006

Coolant Additive KS 42 VA

Technical Data

- Color: yellow
- pH-value: 40 g/l: ca. 9.3 (DIN 51369)
- Viscosity (20°C): 15-25 mm²/s (DIN 51562)
- Density (15°C): 1.10 g/cm³, according to TRGS 611
- Water Hazard Classification 1

Benefits

- Brilliant lubricant effect which reduces the cutting-temperature
- Excellent corrosion prevention and maintenance
- Low frothing
- Excellent cooling effect through very good heat removal
- Transparent solution
- Good transport of glass particles

Recommendations

- Before switching over from any other coolant additive to K 42 VA, please clean thoroughly machines, tubes, pumping and coolant systems.
- The operating solution is prepared by slowly pouring K 42 VA into potable water while simultaneously stirring thoroughly or using an automatic mixer.
Recommended mixing ratio: 2-5%

Applications

KS 42 VA can be used at the milling, drilling, grinding and polishing of optical, technical or medical glasses.

Packing Unit

		Order No.
Coolant additive K 42 VA	10-kg-can	92-000-059
Coolant additive K 42 VA	25-kg-can	92-000-063



Fully synthetic, water-soluble, free from mineral oil, lubricating coolant for glass grinding.

Coolant Additive OGF 2000



Biostable universal coolant for glass grinding.

OGF 2000 is a water-mixable, synthetic coolant for glass grinding, free from mineral oil, chlorine and nitrite.

Technical Data

Concentrate:

- Viscosity: 12 mm²/s (20°C)
- Density: app. 1.10 g/ml (20°C)

Solution:

- pH-value at 2%: 9.3
- Foam UT (3% - NW5): 20 sec.
- Corrosion protection (DIN 51360/2) at 4%: grade 0

Benefits

- High stability
- Extremely low in foam
- Resistant to microbes
- Excellent cooling effect
- Effective corrosion protection
- No nitrosamine problems
- Good dermatological tolerance
- High stock removal
- Long shelf-life

Recommendations

- The operating solution is prepared by slowly pouring OGF 2000 into potable water while simultaneously stirring thoroughly or using an automatic mixer.
- Recommended mixing ratio: 1:25 to 1:40
- Refractometer factor: 1.8

Packing Unit

Order No.

Coolant additive OGF 2000	180-kg-barrel	92-000-016
Coolant additive OGF 2000	18-kg-can	92-000-017
Coolant additive OGF 2000	50-kg-barrel	92-000-018

Technical Data

- Color: clear
- pH-value: approx. 7.0
- Viscosity (40°C): 4.8 mm²/s
- Water hazard classification: WHC 1

Benefits

- Free from chlorine, nitrite, phenol and PCB

Recommendations

- Please install oil vapour exhauster

Applications

Working process	Diamond tool	Concentration
Centering	centering wheels	pure
Bevelling	beveling wheels	pure

Packing Unit

Packing Unit		Order No.
Coolant Oil K 43	20-l-can	92-000-027
Coolant Oil K 43	208-l-barrel	92-000-026

Coolant Oil K 43



A mineral oil for processing optical elements in precision optics if water soluble coolants cannot be used due to higher demands.

Antifoaming Agents

Benefits

- Silicon free

Applications

Antifoam	Recommended for Coolants	To be added to 100 litres of the suspension
E 100	K 40, K 80, KS 1000, KS 42	0.5 – 1 l
MP	all	0.6 l

Packing Unit

Packing Unit		Order No.
E 100	10-kg-can	92-000-657
E 100	1-kg-can	92-000-658
MP	1-kg-bottle	92-005-078
MP	10-kg-can	92-005-079



Anti-foam agents are destined for coolant, polishing and smoothing suspensions in ophthalmic and precision optics.

Silicon Carbide Emery SCDL Dark and Green



Emery made out of glass sand and coal with additives for processing optical elements in the precision optics.

Technical Data

Available: in grit sizes from F80 – F1200

Benefits

The SIC, being dark colored due to inclusions and oxides, has a particularly high toughness, whereas the high purity green SIC is harder and shows better splintering properties.

Recommendations

As an initial concentration Satisloh recommends 400 - 450 grams per litre of water. In order to get optimum result in circular lubrication we recommend to add 2 - 5 grams of wallpaper glue on 1 litre of water. Better suspension properties of the grits can be achieved by this.

Grit Size Table (FEPA)

Macro grits				Micro grits	
DIN-Description	Middle grit size (mm)	DIN-Description	Middle grit size (mm)	DIN-Description	Grit size (µm)
F 4	5.600 - 4.000	F 36	0.600 - 0.425	F 230	82.0 - 34.0
F 5	4.750 - 3.335	F 40	0.500 - 0.355	F 240	70.0 - 28.0
F 6	4.000 - 2.800	F 46	0.425 - 0.300	F 280	59.0 - 22.0
F 7	3.350 - 2.360	F 54	0.355 - 0.250	F 320	49.0 - 16.5
F 8	2.800 - 2.000	F 60	0.300 - 0.212	F 360	40.0 - 12.0
F 10	2.360 - 1.700	F 70	0.250 - 0.180	F 400	32.0 - 8.0
F 12	2.000 - 1.400	F 80	0.212 - 0.150	F 500	25.0 - 5.0
F 14	1.700 - 1.180	F 90	0.180 - 0.125	F 600	19.0 - 3.0
F 16	1.400 - 1.000	F 100	0.150 - 0.106	F 800	14.0 - 2.0
F 20	1.180 - 0.850	F 120	0.125 - 0.090	F 1000	10.0 - 1.0
F 22	1.000 - 0.710	F 150	0.106 - 0.063	F 1200	7.0 - 2.5
F 24	0.850 - 0.600	F 180	0.090 - 0.053		
F 30	0.710 - 0.500	F 220	0.075 - 0.045		At 80%

Packing Unit

Order No.

SCDL 80 silicon carbide dark	92-000-047
SCDL 120 silicon carbide dark	92-000-048
SCDL 150 silicon carbide dark	92-000-049
SCDL 180 silicon carbide dark	92-000-050
SCDL 220 silicon carbide dark	92-000-051
SCDL 240 silicon carbide dark	92-000-052
SCDL 280 silicon carbide dark	92-000-053
SCDL 320 silicon carbide dark	92-000-054
SCDL 360 silicon carbide dark	92-000-055
SCDL 400 silicon carbide dark	92-000-056
SCDL 500 silicon carbide dark	92-000-057
SCDL 600 silicon carbide dark	92-000-058
SCDL 800 silicon carbide dark	92-000-059
SCDL 1000 silicon carbide dark	92-000-060
SCDL 1200 silicon carbide dark	92-002-332

Packing unit: 25-kg-sack

Emery LS Series



Highly sintered clay (aluminium oxide Al_2O_3) for lapping optical components with loose grain. Due to a special production process emeries LS get a disc like shape. LS emeries are especially successful in cases where working with diamond tools is not efficient due to limited-lot productions.

Technical Data

Different types with grain sizes between 6 and 40 μm available.

Benefits

- Scraping material removal
- Plane shape crystals enlarge the working surface
- High stock removal
- Minimum surface roughness
- Short cycle times
- Minimised process steps
- Minimum consumption of abrasives

Recommendations

- LS should be used with the same concentration as previously used emery. In order to benefit from high stock removal rates it makes sense to find an optimum between desired removal rate and a reduced fraction of LS with the lapping suspension.
- We recommend starting with a concentration of 300 – 500 g/l.

Grain Sizes by FEPA

Mesh	Micron	LS Emery	Fepa „F“ Spec.	Granat	Microgrit
300	40	40	240		40
400	30	30	320		35 / 40
500	25			W 340	
600	20	20		W 1	30
	18			W 2	
	15	15	400	W 3	
	12	12	500	W 4	20
	9	9	600	W 6	12 / 15
	6	6	800	W 7	9

Packing Unit

Order No.

LS 6 aluminium oxide with floating parts	6 μm	92-000-033
LS 9 aluminium oxide with floating parts	9 μm	92-000-034
LS 12 aluminium oxide with floating parts	12 μm	92-000-035
LS 15 aluminium oxide with floating parts	15 μm	92-000-036
LS 20 aluminium oxide with floating parts	20 μm	92-000-037
LS 20 aluminium oxide without floating parts	20 μm	92-000-041
LS 25 aluminium oxide with floating parts	25 μm	92-000-038
LS 30 aluminium oxide with floating parts	30 μm	92-000-039
LS 40 aluminium oxide with floating parts	40 μm	92-000-040

Packing unit: 25-kg-cardboard box

Cerium Oxide Polishing Compounds



Water-mixable polishing compounds based on cerium oxides made from rare earths for the polishing of optical elements. The polishing compounds have to get mixed with water.

Technical Data

Detailed data sheets available on request.

Benefits

- **Quality control:**
All batches are checked before delivery with the regard of the four main criteria, i.e. hardness, grit size, suspension properties and polishing efficiency.

Recommendations

- Before changing over from any other polishing compound to Satisloh polishing compounds machine tubes, pumping and polishing systems have to be cleaned thoroughly.
- In order to avoid glass particles or other pollution getting into circulation, the polishing slurry should be filtered. e.g. with our filter tissue for polishing compounds or a nylon stocking which is placed at the return piping.

Applications (Mineral Glass)

Polish	Polishers	Pressure (bar)	Revolution (r.p.m.)	Fields of application
Opaline	Polishing pitch Plano Polishing Disc Polish supports KR and LR	> 0.25	5 – 180	Precision optics
SuperCerox 1663	Polishing pads: Poliflex Standard Polyurethane 166, 126, 146; SPH foil Multi-pol	0.8 – 1.5	800 – 3000	Ophthalmic RX-production Mass production Bifo-production
SuperCerox 1663 Cerox 1650	PU-foils 166, 126, 135, 125	0.8 – 1.5	400 – 3000	Plano optic Round optics Fibre optic
Cerox 1670	Polishing felt Synth. Felt 100 B Soft PU-foils 126, 146 Policor-foil	0.25 – 0.8	180 – 400	Mirror bevels Flat glass Crystal glass
Cerox GG	PU-foils 126, 146, 166	0.8 – 1.5	600 – 1200	Plano optics Filter optics

Concentration / Polishing Temperature:

Apart from pressure and polishing speed, these are important parameters for a constant polishing quality. Both should be regularly checked with an aerometer and a thermometer.

Polish	Concentration per l/water	Temperature (°C)
Cerox 1650 / 1670/ GG	100 – 140 g	20 – 25°
SuperCerox 1663	60 – 80 g	20 - 25°
Opaline	100 – 120 g	20 - 25°

Polishing compound CE 480 ST

- Medium grit size: <1µm
- CeO₂: > 95%

Packing Unit		Order No.
Cerox 1650	20-kg-carton	92-000-121
SuperCerox 1663	20-kg-carton	92-000-122
Cerox 1670	20-kg-carton	92-007-032
Opaline	20-kg-pail	92-000-124
Cerox GG	20-kg-carton	92-000-125
CE 480 ST	US gallon	92-000-129



Polishing Compound CR 6 / CR 15A / CR 85B



An aluminium-oxide water-mixable polishing powder of high purity (99%, min. 98%) for the final polishing of special materials in precision optics, such as: germanium, silicon, zinc selenide, zinc sulfide, gallium arsenide, cadmium sulfide, all kinds of metals, medical artificial limbs, resin surface, acrylics, ceramic substrates.

Technical Data

CR 6

- Color: white
- Grit size: from 0.30 μm up to 1.50 μm

CR 15A

- Color: white
- Grit size: from 0.20 μm up to 0.90 μm

CR 85B

- Color: white
- Grit size: from 0.20 μm up to 0.70 μm

Benefits

- High purity

Recommendations

- Before changing over from any other polishing compound to polishing compound CR 6 / 15A / 85B, machines, tubes, pumping and polishing system have to be cleaned thoroughly.
- In order to avoid glass particles or other pollution getting into circulation, the polishing slurry should be filtered, e.g. with our filter tissue for polishing compounds or a nylon stocking which is placed at the return piping.

Packing Unit

Order No.

CR 6 aluminium oxide	0,6 μm	1-kg-pail	92-000-126
CR 15A aluminium oxide	0,45 μm	1-kg-pail	92-000-127
CR 85B aluminium oxide	0,35 μm	1-kg-pail	92-000-128

Polishing Compound SY 30 - 85

Technical Data

- Particle size: approx. 125 nm
- Specific surface: 80 m²/g
- SiO₂-quota: 30%
- Al₂O₃-quota: 2%
- Na₂O-quota: 0.13%
- Relation SiO₂/Na₂O: 230
- pH-value at 20°C: 10.2
- Specific weight at 15.5°C: 1.20 g/ccm
- Viscosity at 20°C: 2.5 mPa-s
- Appearance: milky, thin liquid
- Quantities supplied: 50-l-barrel

Benefits

SY 30-85 can be thinned very easily with distilled water or fully desalted water to get any desired concentration.

Recommendations

- It can furthermore be mixed with water-soluble acids (except hydrofluoric acid) and with ammonia as well as most of the amines.
- SY 30-85 is compatible with many watery dispersions, e.g. melamine urea, phenolic resin, PVA-adhesives, starch, etc.

Packing Unit

Order No.

Polishing compound SY 30-85	50-l-barrel	92-000-138
-----------------------------	-------------	------------



A ready-mixed polishing compound based on silicic acid / alu oxide for chemical polishing of sapphire using our polishing supports Policor, or synthetic felt 100 B.

Polishing Compound Unioxide C, Zirconium Oxide Pink

Water-mixable compound powder, based on zirconium oxide for pre-polishing optical elements in precision optics.

Technical Data

- Color: pink powder
- pH-value (25 %): 6.5 - 8.0
- Average grit size:
D₅₀: 1.2 – 1.8 µm
D₃: 5.0 µm
- Analysis: 77% Zr-Oxide, 15% Fe-Oxide

Benefits

- High purity

Recommendations

- Before changing over from any other polishing compound to Unioxide, machines, tubes, pumping and polishing system have to be cleaned thoroughly.
- In order to avoid glass particles or other pollution getting into circulation the polishing slurry should be filtered, e.g. with our filter tissue for polishing compounds or a nylon stocking which is placed at the return piping.
- It is recommended to „pre-soak“ Unioxide for about 24 hours before filling into the machine and then to „pre-polish“ for about 8 hours. This will destroy any existing agglomerates.
- As a floating agent for circular lubrication usual wallpaper paste should work well. Adding about 2 to 5 grams to the water should be sufficient.

Packing Unit

Polishing compound Unioxide 20-kg-pail

Order No.

92-002-520

Polishing Compound Oxicon, Zirkonium Oxide 112

Technical Data

- Color: creme-white
- pH-value (25 %): 5.0 - 7.5
- Average grit size:
 - D₅₀ : 1.0 – 1.5 µm
 - D₃ : 4.0 µm
- Analysis: Zr-Oxide and Fe-Oxide

Recommendations

- Before changing over from any other polishing compound to Satisloh Oxicon, machines, tubes, pumping and polishing system have to be cleaned thoroughly.
- In order to avoid glass particles or other pollution getting into circulation the polishing slurry should be filtered, e.g. with our filter tissue for polishing compounds or a nylon stocking which is placed at the return piping.
- It is recommended to „pre-soak“ Oxicon for about 24 hours before filling into the machine and then to „pre-polish“ for about 8 hours. This will destroy any existing agglomerates.
- Usual wallpaper paste should work well as a floating agent for circular lubrication. Adding about 2 to 5 grams to the water should be sufficient.

Packing Unit

Order No.

Polishing compound Oxicon	20-kg-pail	92-000-132
---------------------------	------------	------------

Water-mixable compound powder, based on zirconium oxide for pre-polishing optical elements in precision optics.

Polyurethane Polishing Foil



A film micro-cell polyurethane foam for the polishing of glass in precision optics and ophthalmic, ceramics, pick-ups, screens, seals, quartz crystals, illumination optics, etc.

The foils are available in the following thicknesses:

0.51 mm
0.63 mm
0.81 mm
1.02 mm
1.27 mm
1.52 mm
2.03 mm
2.54 mm
3.00 mm
3.18 mm
3.96 mm
4.75 mm
6.35 mm
12.7 mm
25.4 mm

Further information on request.

Technical Data

- Polyurethane polishing foil is available in sheets of 580 x 1400 mm
- Thickness from 0.51 mm up to 25.4 mm
- Further configurations on request
- Furthermore possible: cutting in special geometrics
- Quantities supplied: sheets or single polishing discs

Benefits

- Available with or without filling material (cerium oxide or zirconium oxide)
- Filling material independent from polish

Recommendations

- Satisloh recommends using either Pattex or Scotchgrip as an adhesive for polyurethane as per the directions given on the adhesive package.
- In order to secure constant polishing results we recommend roughing the foils from time to time with a soft file brush.

Applications

Type of tape	Color/Filler	Hardness Shore „D“	Application	Ophthalmic: O Precision optics: P
113	light-green cerium oxide	13 - 19	glass sensitive to scratches crystal glass surfaces	P
125	grey unfilled	25 - 33	color filter, reticles	P
126	pink zirconium oxide	33 - 43	mass production (spherical) round optics, illumination optics, flat glass/mirror glass	O O P P
135	grey zirconium oxide	33 - 43	round optics (Synchrospeed), micro optics, plano substrates	P P
146	dark green zirconium oxide	20 - 30	multifocal lenses (concave) sapphire, illumination optics TV screens	O P
157	white unfilled	30 - 40	round optics for cameras mikrosopes, telescopes etc. laser optics	P P
166	red-brown cerium oxide	20 - 30	special glasses (bulbs) round optics for cameras, binoculars, microscopes all kinds of plano optics illumination optics quartz crystals flat glass/bevel polishing moulds processing	P P P P P O
177	medium brown cerium oxide	22 - 37	semi-conductors, magnet heads, quarz glass, laser optics	P
187	salmon-pink unfilled	45 - 50	crystal glass gem processing	
188	light-brown cerium oxide	60 - 67	fibre optics crystal glass bevels	P

Polishing Foil Policor

Technical Data

- Policor polishing foil is available in sheets of 890 x 890 x 1.15 mm.

Benefits

- Excellent polishing results

Recommendations

- Policor polishing foil is usually stuck to tools with Pattex or with Scotchgrip.
- The final polishing of silicon, germanium, zinc selenide, gallium arsenide is made with pitch as a polishing compound carrier (see polishing compound CR 6/15A/85B).

Packing Unit

Order No.

Polishing foil Policor 890 x 890 x 1.15 mm, sheets 92-000-246



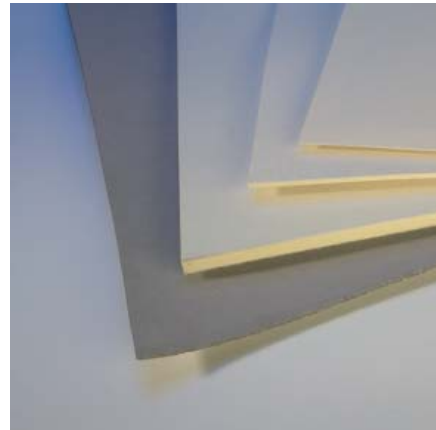
A velvety special polishing cloth for polishing special materials such as silicon, germanium, zinc selenide, gallium arsenide, special steel, special metals, ceramics, plastic (acrylic glass) etc.

Technical Data

- Polishing felt:
Natural polishing felt, ground on both sides, medium hardness, for polishing in conjunction with cerium polishing compounds
Color: white

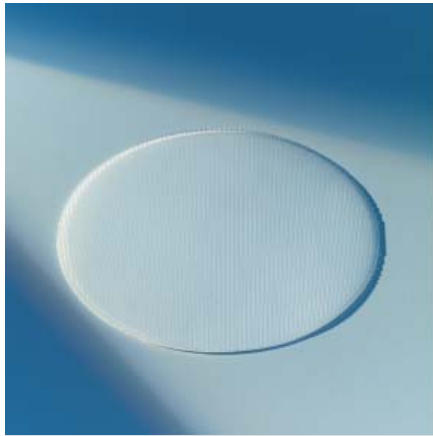
Packing Units and ordering information on demand.

Polishing Felts



A natural polishing felt, ground on both sides, medium hardness, for polishing in conjunction with cerium polishing compounds.

Satisloh Plano Polishing Disc



A polishing compound carrier of durable plastic with ribbed surface for high-speed polishing of plano surfaces in precision optics. Workpieces with different diameters can be processed.

Technical Data

- Available in round discs of 55 mm dia., 0.75 mm thickness
- Quantities supplied: piecewise

Benefits

- Highly abrasion-resistant
- High polishing quality

Recommendations

- Satisloh recommends roughening the plain side of the polishing disc with sandpaper and cleaning it with acetone.
- Dressing of the Satisloh Plano Polishing Discs can be made with a pellet tool, grit size up to 40 mic., abrasive correction pellets PK or emery LS 20.
- We recommend Pattex or Scotchgrip to be applied according to the instructions for use.

Packing Unit

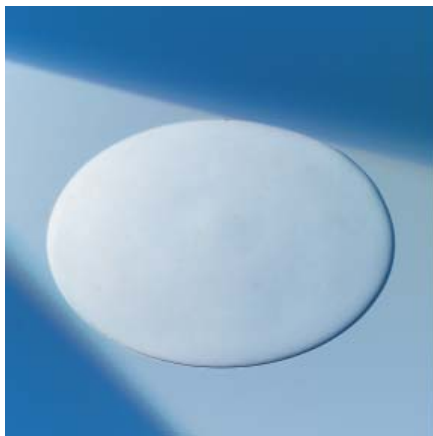
Satisloh Plano Polishing Disc

Ø 55 mm

Order No.

92-000-153

Polishing Disc KR and LR



A polishing compound carrier of durable plastic with ribbed surface for polishing of plano surfaces and round optics in precision optics.

Technical Data

- Available in round discs of 123 mm in diameter
- Polishing disc LR-05 with longitudinal profile + polishing compound SuperCerox 1663 for pre-polishing plano optics
- Polishing disc KR-05 with cubical structure + polishing compound OPALINE for finish polishing spheres

Benefits

- Excellent polishing results
- Highly abrasion-resistant

Recommendations

- Cutting out Polishing disc KR and LR: Star-shaped, in segments or pieces. Parallel lines have to be arranged radially if possible. Make small round discs for big lenses and big discs for small lenses. They have to be arranged in sectors, if necessary with an additional circle for large diameters (more than 200 mm).
- Grind-in the tool with emery SCDL 320

Packing Unit

Polishing disc KR

KR-05 123 mm

Order No.

92-000-154

Polishing disc LR

LR-05 123 mm

92-000-152

Polishing Pitches



A polishing compound carrier based on wood tar resins, fatty acids, phenols and resin acids for polishing high precision optical elements in precision optics.

Technical Data

• Softening points:

Measuring method: ISO 4625
 Measuring tool: ring and ball
 no. 55 63-65°C
 no. 64 64-68°C
 no. 73 70-74°C
 no. 82 73-77°C
 no. 91 78-93°C

• Penetration:

Measuring method: DIN / ISO 52010
 Measuring tool: with needle
 Measuring time: 5 s
 Measuring temperature: 20°C
 Stress on needle: 50 g
 no. 55 1.51 – 1.83 mm
 no. 64 0.31 – 0.55 mm
 no. 73 0.03 – 0.10 mm
 no. 82 0.00 – 0.07 mm
 no. 91 0.00 – 0.04 mm

Recommendations

- The applicability of a polishing pitch depends on the polishing method, the ambient temperature and its softening qualities and fusibility. Polishing method mainly means the so-called cold polishing with circular lubrication and warm polishing with brush lubrication. The solidifying point should be slightly above the ambient temperature, the softening point (begin of plastic deformation) must not exceed the solidifying point by more than 5°C. The melting point should be by 30-50°C higher than the softening point.
- The pitch has to be flexible which is achieved by the influence of the polishing temperature. The pitch, however, has to be hard and brittle to achieve the required form exactness when polishing. In working practice the polishing pitch is slightly warmed up in order to fit the optical element. The pitch tool is then chilled by applying cold polishing compound (approx. 20°C) so that subsequent polishing takes place in the newly adjusted form.
- Polishing may be improved by adding lime-wood flour which we supply on request.

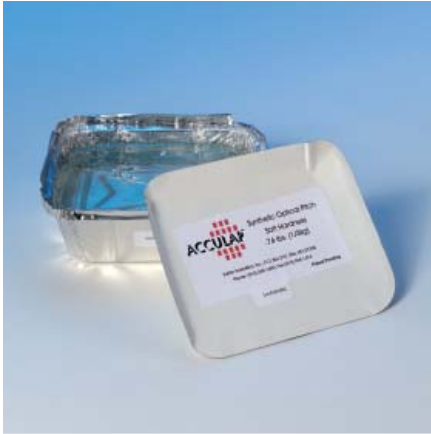
Applications

Recommended polishing compounds:

Cerox 1650: round optics
 > 3 Newton rings: plano optics
 Opaline: round optics
 < 3 Newton rings: plano optics
 CR6 / CR15 / CR 85: special optics, e.g. silicon, germanium, zinc selenide, gallium, arsenide

Packing Unit		Order No.
Polishing Pitch No. 55	1-kg-tin	92-000-250
Polishing Pitch No. 64	1-kg-tin	92-000-251
Polishing Pitch No. 73	1-kg-tin	92-000-252
Polishing Pitch No. 82	1-kg-tin	92-000-253
Polishing Pitch No. 91	1-kg-tin	92-000-254

Synthetic Polishing Compound Carrier Acculap®



These polishing compound carriers have been especially designed for use in precision optics showing extremely stable and consistent properties.

Technical Data

- Soft: hardness 9
- Standard: hardness 30
- Very firm: hardness 60

Benefits

- High purity
- Precision formulated
- Non-drying
- Ultra consistent

Recommendations

- Acculap® polishing compound carriers dominantly comprise styrenic polymers and consequently are highly stable against chemical attack, including high temperature oxidation or degradation. Suspensions containing alcohol can be used for polishing.
- Acculap® polishing compound carriers are not immediately water wetting. As polishing begins, however, wetting of the lap occurs quickly as slurry particles embed in the pitch surface.
- Warm or cold pressing with slurry will accelerate charging.
- **Polishing characteristics:**
Once charged, under given lapping conditions, Acculap® will polish much like natural pitch of comparable hardness. Just as with natural pitches, periodic dressing and trimming of the lap, as well as replacement of slurry, will be required.

Applications

In general, Acculap® polishing compound carriers are poured near 135°C (similar to natural pitch). At this temperature, Acculap® spreads and pours easily. Acculap® bonds well to most materials, particularly surfaces warm prior to application. Aggressive bonding is facilitated by pretreatment of surfaces with a coat of Acculap® dissolves in acetone. Once poured, Acculap® is somewhat more brittle than natural pitches, leading to some differences in channelling. Typically, however, only minor refinement of technique is needed to achieve excellent results. Sharp blades and fast cutting speeds work best.

Packing Unit

Order No.

Synthetic polishing compound carrier Acculap® HA 9	0.333 kg	92-007-334
Synthetic polishing compound carrier Acculap® HA 30	0.333 kg	92-007-335
Synthetic polishing compound carrier Acculap® HA 60	0.333 kg	92-007-336

Optical Cements

Recommendations

The customer himself chooses the type of cement he needs because very different criteria have to be considered such as stress susceptibility of the optical elements, rising temperatures during polishing, cementing procedures, thickness of the cement coating, required resistance to oil, procedure of decementing and cleaning. Following our own experience and that of our customers we are, however, in a position to make recommendations for the different applications. As we deal with natural products variations cannot be excluded. However, these variations are within the range of toleration of the manufacturer.



Ready-made optical cements of different compositions for cementing optical elements onto loose and fixed tools in precision optics, micro optics and plano optics.

Technical Data

Product	Melting point	Oil resistance/ solubility	Main components	Application	Packing unit	Order No.
Rounding cement red	approx. 75°C	not spirit soluble limited oil resistance	colophonium shellac earth-spars	rounding	sticks 20 x 1.5 x 1 cm	92-000-418
Cement sealing wax brown No. 300	approx. 65°C	spirit soluble not oil resistant	colophonium shellac earth-spars	plano optics and big lenses pitch malleting	plates 39 x 18.5 x 3,5 cm	92-000-413
Cement sealing wax black No. 13	approx. 70°C	spirit soluble limited oil resistance	colophonium earth-spars resin	plano optics and big lenses pitch malleting	bars 18.5 x 5 x 3.5 cm	92-000-414
Cement sealing wax black No. 2	approx. 70°C	not spirit soluble	colophonium shellac earth-spars	small and medium size lenses	sticks 20 x 1.5 x 1 cm	92-000-415
Cement sealing wax black No. 1	approx. 70°C	not spirit soluble limited oil resistance	colophonium shellac earth-spars	micro optics	sticks 20 x 1.5 x 1 cm	92-000-416
Cement sealing wax black No. 9 b/soft	approx. 50°C	limited spirit solubility	colophonium shellac earth-spars	micro optics	sticks 20 x 1.5 x 1 cm	92-000-417
Special cement sealing wax C/15 black	approx. 55°C	spirit soluble not oil resistant	colophonium resin wax	plano optics big lenses sawing	bars 18.5 x 5 x 3.5 cm	92-000-421
Cement wax black No. 75	approx. 45°C	not spirit soluble not oil resistant	Resin, wax	small and medium size lenses	sticks 20 x 1.5 x 1 cm	92-000-423
Special cement C/30 Yellow mat	approx. 40°C	limited spirit solubility, limited oil solubility	colophonium wax	plano optics sawing	bars 18.5 x 5 x 3.5 cm	92-002-532
Special cement C/20 II yellow	approx. 40°C	limited spirit solubility, limited oil solubility	colophonium wax	plano optics sawing	sticks 20 x 1.5 x 1 cm	92-000-420

Synthetic Cement Ultra-SK



A synthetic acid-free resin for cementing optical elements on loose and fixed tools in precision optics, micro optics and plano optics. This product is of low tension, does not leave spots on the polished surfaces when de-blocked and has a limited oil resistance.

Technical Data

Initial concentration:

Synthetic resin SK: 2 parts
Ultramoll III: 1 part

Recommendations

For cementing plano substrates susceptible to tension we recommend to:

- Make grooves of about 1 mm of depth into the carrier plate (either in spirals or of cube structure) so that the cement can come out without difficulties and to ensure a thin and even cementing layer.
- Place silk paper onto the warm cementing layer and brush once again with the warmed cement compound. After that press the pre-warmed plano substrates. This will protect the polished surface from damages and avoid any contact to metals.
- Soluble in organic solutions

Applications

This cement is mixed by the user himself.

Packing Unit	Order No.	
Synthetic resin SK	25-kg-sack	92-000-409
Ultramoll III	10-kg-sack	92-000-411

Cementing Foil



A special woven black material soaked in synthetic resin for cementing optical lenses and flat plano workpieces onto multiple blocks.

Technical Data

- Width of roll: 30 cm
- Length of roll: approx. 60 m
- Thickness of tissue: approx. 0.22 mm
- Packing: per meter (on rolls)

Benefits

- No metal contact of the lens with the multiple blocks which minimizes restraints
- The artificial resin coming out while cementing is also a protection lacquer for the polished surfaces.
- Acid-free filling avoids spots while decementing the lenses.
- Quick and clean working
- When the cementing temperature as well as the pressure is constant, cementing tolerances of +/-0.01 mm may be obtained.

Packing Unit	Order No.	
Cementing foil	ca. 60 m/roll	92-000-739

Special Plasters for Prisms

Technical Data

- Color: white
- Linear expansion: < 0.02 %
- Resistance: 2 N/mm² after 24 h
- Grit size: approx. 20 µm
- Quantities supplied: paper sack of 25 kg

Benefits

This plaster has an extremely low expansion rate.

Recommendations

- Add the special plaster to the water while stirring permanently.
- As soon as the powder has been fully soaked, stir briskly for 1-2 minutes and pour it as quickly as possible.
- To keep the expansion to a minimum, it is important that the total processing time is not longer than 6 minutes. After 16 min. the plaster is finally cured.
- It is vital to use clean tap water and clean mixing tools.
- To prevent a pre-hardening, please store the special plaster in a dry place.

Packing Unit

Order No.

Special plasters for prisms	25-kg-sack	92-000-412
-----------------------------	------------	------------



A synthetic special plaster for blocking prisms in precision optics.

UVN 2000 UV Cure Adhesive



A solvent-free, crystal clear, single-component UV cure adhesive for bonding optical elements in precision optics. It meets MIL-A-3920 specification.

Technical Data

- Refractive index: 1.56
- Viscosity at 25°C: 350 cps
- Elongation of failure: 38 %
- Modulus (psi): 10.500 kg/cm²
- Tensile/shearing strength: 210 kg/cm²
- Temperature resistance:
 - 80°C to + 90°C (constant)
 - 100°C to + 135°C (short-term)
- Expiry time: after several months (keep in refrigerator)

Recommendations

- Surfaces must be dry, clean and free from dust.
- The required quantity of adhesive should be dosed as exactly as possible. After fixing the bonded parts the edges may be cleaned with acetone.
- Apply UVN 2000 onto the centre of the lens below. Place the upper lens on top and turn it while slightly pressing so that the adhesive will be evenly spread towards the edges and to remove possible air bubbles.
- The pre-curing and final curing times depend on the thickness, size and UV transmission of the lenses.
- Lenses that have been bonded with UVN 2000 can be separated by placing them into cleaning agent PartsReady® (at app. 80°C) and leaving them there for about 24 hours. After that, the parts can be separated with a razor blade and put into PartsReady® again until the cement layer comes off.

Applications

Instrument	Power	Irradiation time	Application
1500 XL			dosing
Blue Point	300 W	5-20 sec.	pre-curing (fixing)
UVASOL 400	400 W	5-20 sec.	final curing

Packing Unit

UVN 2000 UV cure adhesive 28-g-bottle

Order No.

92-000-424

Vitralit 7256 UV Cement

Technical Data

- Refractive index: 1.52
- Viscosity: 1000
- Density: 1.09
- Linear shrinking: 5.2
- Tensile/shearing strength: 16.2
- Temperature resistance: -40°C to +125°C
- Expiry time: 6-8 months storage in refrigerator
- Final hardness: 12

Benefits

Solvent-free

Recommendations

- Surface must be dry, clean and free of dust.
- The required quantity of UV cement should be applied as exactly as possible. Clean the lens edges with acetone.
- Apply UVN 2000 to the centre of the lower lens. Place the upper lens on top and turn them with a slide amount of pressure in order to distribute the cement evenly up to the edge and to remove any air bubbles.
- The pre- and final curing times depend on the thickness, size and UV-transmission of the glass.
- Components joint with UVN 2000 can be separated again by leaving them in cleaning agent PartsReady® (at approx. 80°C) for about 24 hours. Then the part should be separated with a razor blade and put into PartsReady® again until the cement coating gets off.

Packing Unit

Order No.

Vitralit 7256 UV Cement	100-g-bottle	92-000-429
-------------------------	--------------	------------

A solvent-free, crystal clear single-component UV-cement on basis ethoxy ethyl acrylate and B-hydroxymethylmethacrylat for cementing optical elements in precision optics.

Contact Adhesive Pattex



A polychloroprene-based special adhesive for applying polishing discs and polishing foils onto tools in ophthalmic and precision optics.

Technical Data

- Specific gravity: 0.89 kg/l
- Consistency: low viscosity
- Color: beige
- Solvents: gasoline, acetone
- Vapour pressure: approx. 165 mbar
- Viscosity at 20°C: approx. 1800 mPas

Recommendations

- The surface must be clean and free from oil, dust and other residue. Use acetone or any other solvent for cleaning. If necessary, smooth the tools with loose abrasive to reach a rougher surface.
- Apply the adhesive evenly to both surfaces. After the adhesion time, press the two surfaces together. The Processing temperature should be between 15°C and 20°C. Adhesion is complete after around 3-5 days. For pressing we recommend adequate pressing tools.

Packing Unit

Order No.

Contact adhesive Pattex	tube, 125 ml	92-000-433
Contact adhesive Pattex	tin can, 650 ml	92-000-434

Two-component Adhesive Technicoll 8266/8267 (part A + B)



A special adhesive based on epoxy resins for fixing diamond pellets to lapping tools in ophthalmic and in precision optics.

Recommendations

- The surfaces have to be dry, clean and free from dust and oil. A perfect adhesion will be achieved after smoothing the tools with a loose abrasive such as silicone carbide SCDL 320 or LS 30. A thin adhesive film should be applied preferably on both surfaces to be put together (optimum = 0.1 mm joint = about 100g/m²). Press slightly. Mixing ratio for Technicoll 8266 = 1:1 (volumetric). Once the red color has changed to cream, the mixture is ready for use.
- It is recommended to have the adhesive harden in an oven.
- Curing times:
 Technicoll 8266/8277 A + B
 50°C reduced to approx. 4 h
 75°C reduced to approx. 2 h
 100°C reduced to approx. 1 h
 125°C reduced to approx. 30 min
 150°C reduced to approx. 15 min

Packing Unit

Order No.

Technicoll 8266 part A	70 g	92-000-436
8267 part B	60 g	

Protective Lacquers

Benefits

Protects even delicate prisms & lenses after polishing from steaming up.

Recommendations

- To reach the required spray viscosity special thinner should be added. Do not use other thinners because of possible side effects.
- We recommend applying a good coat of protective lacquers to the optical surface with a brush or spraygun. Do not use a rubber foam roll (bubble effect).

Applications

Protective lacquer:	Recommended thinner	Cleaning suggestion
AC 5801 black	thinner for protective lacquer AC 5801	acetone
IL 400	thinner for protective lacquer AC 5801	ethanol
protective lacquer blue	protective lacquer blue	acetone
protective lacquer blue, spray	no thinner necessary	
protective lacquer dark blue red brown grey beige black	universal thinner	PartsReady®



For protecting prisms and lenses during subsequent processing after polishing.

Packing Unit		Order No.
AC 5801 black	11 l	92-002-280
black	10 kg	92-000-640
blue	11 l	92-000-632
blue spray	400 ml	92-000-631
dark blue	10 kg	92-000-636
grey beige	1 kg	92-005-110
grey beige	10 kg	92-000-637
IL 400 colorless	5 l	92-001-948
IL 400 black	5 l	92-000-642
red brown	1 kg	92-005-012
red brown	10 kg	92-000-638
red brown	50 kg	92-000-639
Universal thinner	30 kg	92-004-578
Universal thinner	60 l	92-002-779
Thinner for protective lacquer blue	11 kg	92-000-792
Thinner for protective lacquer AC 5801	30 l	92-002-628

Both acetone and ethanol can be obtained at your local chemicals shop.

Surface Saver Tape Premium MP



This flexible self-adhesive surface saver tape is used as an alternative to protection lacquer. Solvents are not required.

Benefits

- Very easy application on polished surfaces or surfaces to be protected
- Polished surfaces will be protected against contamination and damages when stored for a longer period of time
- Suitable for provisional and regular cementing
- Can be easily removed by hand without leaving residues

Packing Unit

Premium MP

35 m x 10 cm

Order No.

92-000-456

Centering Tape

Transparent plastic tape protects lenses from finger prints and scratches when centering.

Technical Data

- Form: transparent plastic tape
- Dimensions: 100m x 100mm reel

Benefits

- Excellently adapts to lens surfaces while ensuring high compression strength and non-slip
- The tape is not subject to any restrictions concerning shelf life.

Recommendations

- Tailor the tape to the desired dimension and place between lens and clamping chucks.
- The Satisloh Centering Tape can be used with oil as well as with coolant additives.

Packing Unit

Centering Tape

100 m x 100 mm

Order No.

92-004-888

Deconex OP 120



For the use in ultrasonic cleaning systems. High performance cleaning concentrate for the optical industry. Deconex OP 120 is a liquid, mildly alkaline yet highly efficient concentrate for the spontaneous cleaning of delicate optical components prior to coating. Contaminations, such as dust, finger prints etc. which still adhere on the surfaces after inspection are removed self-acting and without any traces by Deconex OP 120.

Technical Data

- Suitable for: lead crystal, ferrous metal, glass, rubber, ceramic, porcelain, quartz, steel
- Not suitable for: alkaline sensitive high precision optical glasses
- Exposure time at 60-80°C: 3-10 min. (Dosage 0.5 - 2%)

Benefits

- Deconex OP 120 considerably reduces the surface tension of the cleaning solution and contamination is easily removed because of its good wetting performance.
- The excellent emulsifying and dispersing capabilities prevent removed particles from being redeposited.
- Special tension-active surfactants guarantee absolute rinsing of the cleaned surface.

Recommendations

- Keep container tightly closed, store in a dry place and protect from sun. Recommended storage temperature: +5 to +25°C

Packing Unit	Order No. (Germany/Overseas)
Deconex OP 120 14-kg-can	92-000-679 / 92-000-709
Deconex OP 120 35-kg-can	92-000-680 / 92-000-710

Technical Data

- Suitable for: all kind of alkali compatible organic and mineral ophthalmic lenses and high precision optical glasses
- Not suitable for: Alkaline sensitive high precision optical glasses
- Exposure time at 60-80°C: 3-10 min (dosage 1-3%)

Benefits

- Deconex OP 145 has excellent emulsifying and dispersing capabilities and contamination is easily removed because of its good wetting performance.
- An optimum compound of surfactant allows an easy rinse off without any traces of the cleaning solution left.

Recommendations

- Keep container tightly closed, store in a dry place and protect from sun. Recommended storage temperature: +5 to +25°C

Packing Unit	Order No. (Germany/Overseas)
Deconex OP 145 30-kg-can	92-000-688 / 92-000-718
Deconex OP 145 240-kg-barrel	92-000-689 / 92-000-719

Deconex OP 145

For the use in ultrasonic cleaning systems. Deconex OP 145 is a liquid, highly alkaline cleaning concentrate for the final cleaning of organic and mineral ophthalmic lenses prior to coating. Deconex OP 145 can also be used for the removal of abrasives and polishing compounds after manufacturing (cleaning process „ready for inspection“).

Deconex OP 162

For use in ultrasonic cleaning systems. Deconex OP 162 is a liquid, neutral, phosphate-free concentrate for automatic gentle cleaning “ready for inspection”, “ready for coating” and “ready for assembly” of precision optics and ophthalmic. Deconex OP 162 provides glass surfaces with a complete wetting and therefore guarantees a rapid, thorough cleaning and removing of slightly adhering organic and inorganic residues like fingerprints, dust etc. re-deposition of removed particles is avoided.

Technical Data

- pH-value: solution at 1% in de-mineralised water, approx. 7.9
- Density concentrate: 1.06 g/ml
- Appearance concentrate: transparent, colorless to yellowish

Benefits

- Intensive cleaning: “ready for inspection”, “ready for coating” and “ready for assembly”
- Can be used for almost all materials in precision and ophthalmic optics
- Bath can be used for several cleaning processes
- Economical – only small dosage necessary

Recommendations

Keep container tightly closed, store in a dry place and protect from sun. Recommended storage temperature: +5 to +25°C

Packing Unit

Order No. (Germany/Overseas)

Deconex OP 162	10-kg-can	92-003-948 / 92-004-457
----------------	-----------	-------------------------

Deconex OP 165

For the use in soaking bath, ultrasonic cleaning systems and special brush and spindle cleaning machines. Tenacious deposits on the surfaces of organic and mineral lenses are often caused due to long storage times. In most cases, these deposits can only be removed by a mechanical pre-treatment. Deconex OP 165 is an agent for spindle and brush cleaning systems but at the same time, it can also be applied for the manual precleaning (with sponge or cloth).

Technical Data

- Suitable for: all kind of organic and mineral glasses as well as alkaline sensitive high precision optical glasses
- Partly suitable for: acrylic glass
- Exposure time at 20°C - 60°C: 1-5 min
- Dosage: 1-3% (mechanical); app. 20% (manual)
- pH-values: 1%: 7.0 – 8.0; 20%: 7.0 – 8.0
- Density: 1.04 g/ml
- Surface tension: 1%, 36 dyn/cm

Benefits

- Reduces the surface tension of the cleaning solution and removes contamination easily
- Supports the procedure for removing and emulsifying, respectively dispersing the contamination
- Prevents removed particles from being re-deposited
- The pH neutral formula guarantees for the highest possible protection of the material.
- Excellent wetting capabilities

Recommendations

Keep container tightly closed, store in dry place and protect from sun. Recommended storage temperature: +5 to +25°C

Packing Unit

Order No. (Germany/Overseas)

Deconex OP 165	10-kg-can	92-000-724 / 92-000-695
Deconex OP 165	25-kg-can	92-000-725

Deconex OP 190

Technical Data

- Suitable for: glass, precious stones, metals lead crystals, quartz, ceramic, synthetic material, stainless steel, iron
- Not suitable for: extremely alkaline sensitive high precision optical glasses
- Exposure time: 10-20 min (dosage 2-5%)

Benefits

- Deconex OP 190 has excellent emulsifying capabilities and residues of resin and wax are easily removed because of its good wetting performance.
- The coagulation of residues of waxes and resins prevents removed particles from being redeposited on cleaned surfaces.
- Etchant or corrosive substances have been omitted. Deconex OP 190 consists of mild substances which are at the same time kind to materials and meet the regulation of the environmental protection.

Recommendations

Keep container tightly closed, store in a dry place and protect from sun. Recommended storage temperature: +5 to +25°C

Packing Unit		Order No. (Germany/Overseas)
Deconex OP 190	10-kg-can	92-000-700 / 92-000-729
Deconex OP 190	25-kg-can	92-003-432
Deconex OP 190	220-kg-barrel	92-001-929 / 92-003-431

For use in ultrasonic cleaning systems. Deconex OP 190 is a liquid cleaning concentrate for spontaneous cleaning in the neutral field of persistent contamination of waxes and natural resins such as colophonium. Deconex OP 190 has to be applied in preliminary stage of the cleaning process „ready for inspection“ of optical components.

Deconex OP 193

Neutral NMP-free special cleaner for precision optical components – suitable for dipping baths and ultrasonic equipments.

Technical Data

- Suitable for: precision optics, prisms, quartz, sapphire, Zerodur, calcium fluoride
- For materials not mentioned please make your own specific compatibility tests or consult your supplier
- Residence time: 3-10 min (dosage 100%)
- Temp. 25-45°C

Benefits

- Due to excellent wetting properties and small ultrasonic absorption the undiluted product guarantees a rapid, thorough removing of strongly adhering contaminations.
- Deconex OP 193 shows good emulsifying properties for removed contaminations and this consequently increases the life time of the bath. Its formulation is N-methylpyrrolidone-free.

Recommendations

- Deconex OP 193 is used undiluted at the precleaning stage of precision optical components for removing protective lacquers, cements, resins and pitches. The product is used primarily in the first step of ready-for-inspection cleaning. It is used in ultrasonic or dipping baths respectively in ultrasonic cleaning units.
- Keep container well closed in a dry place and protected from insolation. Storage temperature between +5 and +25°C

Packing Unit		Order No.
Deconex OP 193	10-kg-can	92-006-715
Deconex OP 193	25-kg-can	92-006-716
Deconex OP 193	220-kg-barrel	92-006-717

PartsReady®



Description

PartsReady® cleans as effectively as halogenated hydrocarbons trichlorethane, perchlorethane, 1,1,1,-trichlorethane and methylene chloride which can no longer be used. PartsReady® loosens and removes (without residues) sediments on optical surfaces made of glass and quartz glass, as they usually arise during the manufacture of lenses, prisms, fibre glass optics and other optical lenses. This comprises organic and not organic residues like pitches, cements, polishing compounds, oils, waxes, fingerprints and protection lacquers. PartsReady® also cleans optical instruments made of steel, aluminium and brass.

Benefits

- PartsReady® conserves for the environment and improves your work-place.
- It has low solvent vapour emissions which results in less consumption (<1/3 of former versus e.g. methylenchloride was confirmed).
- Contrary to cleaning operations with other organic solvents such as butyldiglycols the residues are loosened with PartsReady® and not, as is often the case, molten by means of high temperatures.
- PartsReady® has low flammability (flash point: 90°C) and full water-miscible, non-carcinogenic and biodegradable.
- PartsReady® has no ozone depleting substances and can be recycled.

Recommendations

Before starting your PartsReady® process you should check if your materials of constructions are resistant to organic solvents.

When a change from traditional cleaning solvents to PartsReady® is being considered for either a small plant trial or total conversion, gloves made of neoprene or natural latex with grip provide should be applied for appropriate protection. Shoe soles of polyurethane have to be avoided, leather or natural rubber are recommended.

PartsReady® is hygroscopic, i.e. it withdraws water from its surroundings. This procedure may affect the cleaning results. PartsReady® will lose its effect as the share of water increases. Cans and barrels are to be shut again immediately. The ultrasonic cleaning basins are to be covered as long as possible.

As long as a temperature of 70°C is not exceeded an ex-protection of the ultrasonic bath is not imperative. Ignition sources, however, are to be avoided as well as an electrostatic charging. Ensure a sufficient removal by suction.

Packing Unit		Order No.
PartsReady®	208.7-kg-barrel	92-000-734
PartsReady®	10-kg-can	92-000-735

Material Compatibility :

Applicative for the following lens types:

Precision optic lenses, prisms, mineral glass, organic glass, crystals, sapphires, Zerodur, calcium fluoride

Applicative for the following sealings/supply pipes:

Teflon, Kalrez, Silicone rubber, Polyethylen (HDPE / LDPE / linked), Polypropylen, EP Co-polymer, Nylon 101, Halar

Not applicative for the following sealings/supply pipes:

ABS, PVC, Viton, Kynar, Lexan, Buna-N, Noryl EN-265

deconex[®] de-coat 510

For the removal of hardcoatings on ophthalmic lenses and other types of glass. Suitable for use in ultrasonic cleaning baths.

Technical Data

Application:

deconex[®] de-coat 510 is a liquid product which is used for the removal of hardcoatings on the following substrates:

- Organic ophthalmic lenses
- Other glass substrates

For a successful de-coating certain technical requirements have to be met. We recommend to contact us for more details.

Ingredients:

Alkalis, complexing agents, surfactants

Chemical/Physical Properties

pH value	1% solution in fully demineralized water	app. 12.5
Density	concentrate	1.15 g/cm ³
Appearance	concentrate	clear, colourless liquid

Material Compatibility

- Suitable for organic glass
- Not suitable for alkali-sensitive precision optics
- For materials not mentioned please make your own specific compatibility tests or consult Borer Chemie AG.

Recommendations

Evaporation losses should only be balanced with softened or DI-water! The de-coating process should be followed by a final cleaning process. We are pleased to recommend you a process adapted to your existing cleaning equipment with our deconex OP line.

Neutralisation

To dispose of unused deconex[®] de-coat 510 solution by neutralisation the following is required: per kg of deconex de-coat 510 (concentrate) to obtain a pH of app. 7-8: 375 g hydrochloric acid 25% or 223 g sulphuric acid 60%. Please contact us regarding disposal of used de-coating solution.

Packing Unit

deconex[®] de-coat 510 10, 25 or 240 kg

Areometer/Measuring Cylinder

Benefits

The life time of the polishing slurries can be increased by frequent checking and recovering of density.

Recommendations

- Fill 250 ml of the polishing slurry into the measuring cylinder at a temperature of 20°C.
- In order to homogenise the suspension, shake the cylinder for about 1 min. After that, the areometer is immersed into the liquid without touching the cylinder sides.
- After a period of 3.5 minutes the display of the areometer is checked on the top level of the liquid. Find the same value in the vertical axis on the chart and draw a horizontal line to the curve. Vertically below the point of intersection the concentration rate can be found on the concentration axis.

Applications

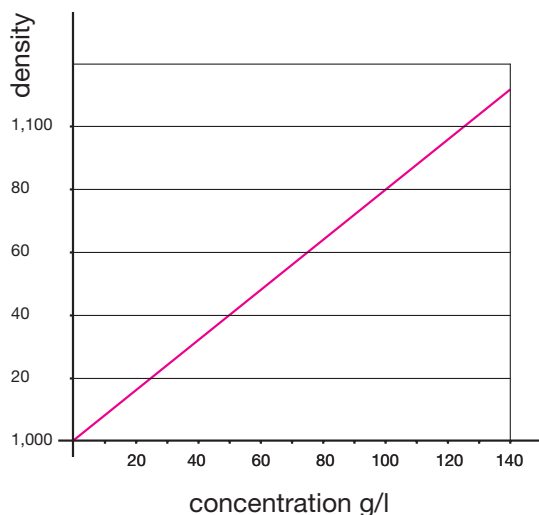
Type of polish	Recommended concentration values	Field of application
SuperCerox 1663	60-80 g/l	serial production ophthalmic
SuperCerox 1663	60-70 g/l	RX-production ophthalmic
SuperCerox 1663	70-90 g/l	precision optics

Packing Unit

Packing Unit	Order No.
Areometer for mineral w/o measuring cylinder	92-000-482
Measuring cylinder for areometer mineral	92-000-484



Measuring spindle with matching measuring cylinder (250 ml) to ascertain the concentration of polishing slurries.



Manual Refractometer



A measuring instrument for checking the concentration of coolant suspensions in ophthalmic and precision optics. Besides an easy handling, this hand refractometer offers a clean measuring method with only small test quantities and no chemicals required.

Benefits

Quick establishing of the concentration of coolant suspensions.

Recommendations

Measuring cooling lubricants:

It is recommended to use the scale which is in the refractometer as a reading scale and to multiply - according to the kind of lubricant applied - the indicated value by a conversion factor. This factor may be established by the user as follows:

- Zero point has to be adjusted with the water which is used to prepare the mixings (tap water): By turning the adjusting screw the boundary line is exactly adjusted to „0“ at a temperature of 20°C.
- Prepare required lubricant concentration in water, shake well; e.g. mixture by 5%
- Measuring this mixture with the hand refractometer at the same temperature as when adjusting the zero point; this will result in reading value a. Establishing conversion factor: e.g. $F = 5/a$
- If any mixture by p-% is prepared, this will result in a conversion factor to $F = p/a$
- The temperature correction once effected as described before causes that all further measurements are to be multiplied by this established factor in order to obtain the concentration of the cooling lubricant.

Applications

- Fold up lighting plate and put 2 or 3 drops on the horizontally held measuring surface
- Shut lighting plate: The measuring surface should be completely wetted by the sample liquid
- Adjust the instrument to a wide-range light source and look through the eyepiece. If necessary, adjust to scale by turning

Temperature Adjustment

The scales have been determined for a temperature of 20°C. If measured at a different temperature the read-off value is to be corrected. Please increase by 0.4.

Packing Unit

Manual refractometer T32

Order No.

92-000-480

Squirrel-hair Brushes

Technical Data

Available in different diameters.

Packing Unit			Order No.
squirrel-hair brushes	ø 6 mm	6 pcs. box	92-000-774
squirrel-hair brushes	ø 16 mm	6 pcs. box	92-000-778
squirrel-hair brushes	ø 20 mm	6 pcs. box	92-000-777
squirrel-hair brushes no. 6	ø 10 mm	6 pcs. box	92-000-775
squirrel-hair brushes no. 8	ø 14 mm	6 pcs. box	92-000-776



For removing dust particles from polished surfaces prior to using test glasses.

Filter Cloth for Polishing Compound

Technical Data

- Weight: 20 g/m²
- Thickness: 0.09 mm
- Tensile strength dry: length 60 N; cross 8 N
- Tensile strength wet: length 20 N; cross 1.5 N
- Pore size dry: 157-235 µm
- Pore size wet: 115-170 µm
- Pore volume: 85%
- Dimensions: 150m x 35 cm

Recommendations

Filter paper to be used on Satisloh coolant filter equipments.

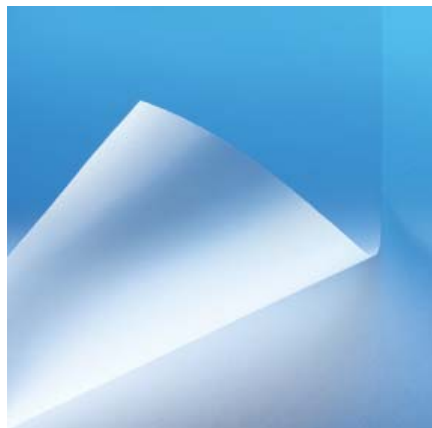
Benefits

Longer life of the coolant suspension.

Packing Unit

Packing Unit		Order No.
Filtering paper	150 m	92-000-738

Other roll dimensions on request.



A micro filter paper for filtering glass particles in coolant suspensions.

Filter Cloth for Polishing Compound No. 125



Nylon filter cloth for polishing compounds. Prevents that glass particles or other contaminations get into the fluid thus affecting the polishing result.

Technical Data

- Mesh size: 125 µm
- Packaging unit: material sold by the meter in rolls (width approx. 1 m)

Benefits

High filtration performance.

Packing Unit

Filter cloth for polishing compound No. 125

sold by the meter in rolls

Order No.

92-000-738

Protective Gloves



Description

- Type Trikot: 100% cotton, sizes: 8 to 12
Color: pure white
- Type N-Dex: 100% nitrile, sizes: S, M, L, XL
Thickness: 0.2 mm
Color: light blue

Benefits

- Type Trikot:
Skin-friendly, breathing, absorbent glove
Washable up to 60°C
- Type N-Dex:
Protecting against thinned and half-concentrated acids and lyes and against aliphatic and alicyclic hydrocarbons

Recommendations

- Glove Trikot for control and coating departments
- N-Dex for machine personnel to protect skin against coolant and polishing suspensions

Packing Unit

Order No.

Glove Trikot white/pair	size 8	60 pcs.	92-000-805
Glove Trikot white/pair	size 9	60 pcs.	92-000-806
Glove Trikot white/pair	size 10	60 pcs.	92-000-808
Glove Trikot white/pair	size 12	60 pcs.	92-000-809
Rubber gloves N-Dex blue	size S	100 pcs.	92-000-810
Rubber gloves N-Dex blue	size M	100 pcs.	92-000-811
Rubber gloves N-Dex blue	size L	100 pcs.	92-000-812
Rubber gloves N-Dex blue	size XL	100 pcs.	92-000-813

Skin Protection

Description

- Stoko-Protect+ (former Taktosan): Water-resistant paste to protect the skin while working with coolant suspensions
- Stokolan: For the subsequent care of the skin

Technical Data

Quantities supplied: single tubes

Benefits

Water-resistant

Packing Unit		Order No.
Stoko-Protect+	tube, single	92-000-796
Stokolan	tube, single	92-003-809



Diamond Centering Wheels



Sintered diamond wheel bronze-bonded for centering of optical lenses in precision optics. Please use the recommended Satisloh coolants.

Technical Data

- Diamond centering wheels are available in different outer diameters, width of grit, depth of grit and bore.
- Grit size, concentration, with or without fit for mounting bevels have to be specified separately.

Benefits

- Constant quality
- High cutting performance

Packing Unit

- Quantities supplied: single

Diamond Bevel Sections

Sintered ring tools in bronze-bond for bevelling of optical lenses in precision optics. Please use our recommended coolants. Bevel sections have to be mounted onto cylinder wheels and should be counterbalanced before running in production.

Technical Data

- Diamond bevel sections are available in different outer diameters, width of bevel and depth of grit.
- Grit size, concentration and angle have to be specified separately.

Benefits

- Constant quality
- High cutting performance

Diamond Hollow Drills

Technical Data

- Diamond hollow drills are available in different outer diameters.
- Grit size, adapter, drilling depth and depth of grit have to be specified separately.

Benefits

- High concentricity tolerance of max. 0.02 mm
- High cutting performance
- Long life time (up to 60.000 holes)

Sintered diamond hollow drills in bronze-bond for drilling optical glass in precision optics, and flat glass industry. Please use the recommended Satisloh coolants.

Diamond – Cup Wheels Plano

Technical Data

- Diamond-cup wheels (plano) are available in different outer diameters and width of diamond lip.
- Grit size, concentration, depth of grit and adapter have to be specified separately.

Benefits

- Constant quality
- High cutting performance

Sintered diamond cup wheel in bronze-bond for plano-generating of optical elements in precision optics. Please use the recommended Satisloh coolants.

Diamond Cup Wheels for SPM-20, SPM-25, SPM-50, SPM-60, SPM-120, SII, GI, GII

Sintered diamond wheels in bronze-bond for generating and lapping of optical elements in precision optics in conjunction with our coolant additives.

Technical Data

- Diamond wheels for SPM 20 SL are available in different diameters and lip geometries (see list below).

Benefits

- Constant quality
- High cutting performance

Recommendations

Recommendations for optical lenses and quartz

	Tool diameter			
	1-20 mm	20-50 mm	50-100 mm	> 100 mm
Generating	D 35	D 46	D 76	D 91
Lapping	D 10	D 15	D 15	D 15

The tools are available in the following standard sizes:

Diamond wheel for:	Max. tool diameter [mm]
SPM-20/25	-> 20 resp. 35
SPM-50	->70
SPM-60	63
SPM-120	16-100
SII	140
GI	160
GII	100

Standard Form RF DIN 58741 Average tool diameter (3.0 - 180 mm)

3.0	28.0
3.5	32.0
4.0	35.0
4.5	36.0
5.0	40.0
5.6	45.0
6.3	50.0
7.1	55.0
8.0	60.0
9.0	63.0
10.0	70.0
11.0	71.0
12.0	80.0
12.5	90.0
13.0	100.0
14.0	110.0
16.0	125.0
18.0	140.0
20.0	150.0
22.0	160.0
25.0	180.0

Diamond Grinding Rings for SPM-Plan

Technical Data

- Available in 256 mm dia. Further sizes on demand.

Benefits

- No breaking of segments or pellets
- Quick changeover to another grit size by simply changing the grinding rings
- For each machine only one carrier plate required
- No time-consuming adhesive bonding of pellets and segments
- Low noise level during working process
- Constant quality
- High grinding performance

Recommendations

One carrier plate for each machine.

	Order No.
SPM-Plan diamond ring 256x5/D20B/C23	92-003-788
SPM-Plan diamond ring 256x5/D64/C35	92-001-773
SPM-Plan diamond ring 256x5/D76/C35	92-001-821
SPM-Plan diamond ring 256x5/D91/C23	92-001-573
SPM-Plan diamond ring 256x5/D91/C35	92-001-774
SPM-Plan carrier plate without diamond ring	92-001-574

- Quantities supplied: single

Diamond grinding rings (bronze bond). Flat grinding tools for SPM-Plan.

Diamond Saw Blades

Technical Data

- Diamond saw blades are available in different diameters, width and for different depth of cut.
- Depth of grit and bore should be specified separately.

Benefits

- Constant quality
- High cutting performance

Saw blades with a sintered diamond grit in bronze-bond for sawing optical raw glass into slices, quarters, segments, prisms etc.

Diamond Pellets



Sintered diamond pellets for lapping optical elements in precision optics and ophthalmic lens production. Please use the recommended Satisloh coolants. For the various applications Satisloh recommends different types of diamond pellets.

Technical Data

- Precision optic plano (field of application):
Type FP36DS; size 10 x 5 mm; grit size D12
- Precision optic sph. (field of application):
Type B48; size 10 x 3, 6 x 2, 4 x 2 mm; grit size D7 to D126
- For flat grind tools plano (field of application):
Type B48; size 10 x 3 mm; grit size D20 to D151
- Precision optic sph. + plano (field of application):
Type FP30; size 10 x 3, 6 x 2, 4 x 2 mm; grit size D7 to D46

Benefits

- Short lapping times
- Long life of the lapping tools
- High economy
- Lower surface costs

Diamond Suspension Magnum-Top

Technical Data

- Monocrystalline diamond grit
- Narrow calibration, free from agglomerates, free from oil and solvents, odourless
- Water-based

Benefits

- Perfectly suitable for sprayguns to prevent nozzles and hoses from clogging
- Will not subside for months
- Does not clog

Recommendations

Diamond suspension (spray) should only be used before polishing. During polishing we recommend diamond lubricants. This improves your polishing results, because of the even abrasion effect of single diamond grain. Permanently adding diamond suspensions or -spray will impair the polishing results.

Packing Unit			Order No.
Magnum-Top	0,10 µm	1000 ml	92-003-828
Magnum-Top	0,25 µm	1000 ml	92-003-830
Magnum-Top	1 µm	1000 ml	92-003-831
Magnum-Top	3 µm	1000 ml	92-003-832
Magnum-Top	6 µm	1000 ml	
Magnum-Top	9 µm	1000 ml	
Magnum-Top	15 µm	1000 ml	
Magnum-Top	30 µm	1000 ml	
Magnum-Top	45 µm	1000 ml	



Diamond Suspension Magnum-Top-Duo



Technical Data

- Containing closely calibrated, blocky, monocrystalline diamonds in low-viscous suspension
- Low surface tension and thus very good wetting properties
- A combination of the two well-known components
Diamond suspension Magnum-Top and Diamond lubricant yellow

Benefits

The combination of both components offers:

- Easier handling
- Higher stock removal
- Better surface quality

Packing Unit

Order No.

Magnum-Top-Duo	0.10 μm	2500 ml	
Magnum-Top-Duo	0.25 μm	2500 ml	92-006-553
Magnum-Top-Duo	1 μm	2500 ml	
Magnum-Top-Duo	3 μm	2500 ml	
Magnum-Top-Duo	6 μm	2500 ml	
Magnum-Top-Duo	9 μm	2500 ml	
Magnum-Top-Duo	15 μm	2500 ml	
Magnum-Top-Duo	30 μm	2500 ml	

Diamant Lubricant Yellow-S

Technical Data

- Suitable for pitch polishing
- Water based

Packing Unit

Order No.

Diamant lubricant Yellow-S	10 l	92-003-952
----------------------------	------	------------

All listed products are available from stock.



Suitable for aqueous diamond suspensions.

Polishing Cloths Swing-Plus, Quick-Step, Mambo

Technical Data

• Swing-Plus:

Color: grey-black

Flocked universal polishing cloth with very low flocking, self-adhesive flocked on a solid support suitable for ¼, 1, 3 and 6 µm diamond polish and for O.P.S. and alumina.

Hardness**, Stock removal***, Marginal sharpness***, Life time***

• Quick-Step:

Color: white

Solid artificial fibre cloth for 6, 9, 15 and 30 µm diamond polish self-adhesive also suitable for 3 µm in case of ceramics.

Hardness***, Stock removal***+, Marginal sharpness***+, Life time***+

• Mambo:

Color: black

Chemically resistant, spongy oxide polishing cloth, suitable for polishing with oxide polishing suspension (O.P.S.). Ensuring a very good marginal sharpness and non-deforming surfaces.

Hardness**, Stock removal**, Marginal sharpness***+, Life time***

*= satisfactory, **= good, ***= good to very good, ***+= very good



All polishing cloths can be used for alcoholic and watery polishing suspensions and lubricants. The cloths are available in diameters 200 mm, 250 mm and 300 mm. All other dimensions: customized

Packing Unit

Poliertuch Swing-Plus/Quick-Step/Mambo	200 mm Ø	VE = 5 pcs.
Poliertuch Swing-Plus/Quick-Step/Mambo	250 mm Ø	VE = 5 pcs.
Poliertuch Swing-Plus/Quick-Step/Mambo	300 mm Ø	VE = 5 pcs.
Poliertuch Swing-Plus/Quick-Step	400 mm Ø	VE = 5 pcs.
Poliertuch Swing-Plus/Quick-Step/Mambo (rosette)	7.5 mm Ø	VE = 50 pcs.

Evaporants for AR Coating



High quality, high performance evaporation materials.

Technical Data

- High purity and consistency

Benefits

- Guaranteed consistent high quality and high performance for AR coating processes
- High quality materials
- Approved quality

Recommendations

- Store in a dry place
- Keep containers closed

Applications

- All types of optical coatings
- Can be used in all types of coaters that work with thermal or EB evaporation sources

Oxides

Satis Code	Product	Product	Form	Specification	Unit	Order No.
	aluminium oxide	Al ₂ O ₃	granules	1-3 mm	250 g	92-007-269
9870099T003	hafnium (IV) oxide	HfO ₂	granules	0.5-5 mm	250 g	92-005-922
9870005V003	silicon dioxide	SiO ₂	granules	1-4 mm	500 g	92-005-994
9870005V004	silicon dioxide	SiO ₂	granules	2,5-4 mm	500 g	92-005-993
	silicon dioxide	SiO ₂	granules	1-3 mm	5000 g	92-005-897
9870007D004	silicon monoxide	SiO	granules	2-4 mm	250 g	92-005-986
	adhesion material	SiO/Cr	granules	1-3 mm	250 g	92-007-274
9870101M001	tantalum pentoxide	Ta ₂ O ₅	granules	1-4 mm	250 g	92-005-265
9870101M002	tantalum pentoxide	Ta ₂ O ₅	pills	0.5 g	250 g	92-005-920
9870003C010	titanium (II) oxide	TiO	pills	1 g	250 g	92-005-997
9870070N002	titanium (II) oxide	Ti ₂ O ₃	pills	1 g	250 g	92-005-943
9870077Y003	titanium dioxide	TiO ₂	pills	2 g	250 g	92-005-936
9870003C007	titanium oxide S	TiO 1.7	granules	1-4 mm	250 g	92-005-331
	zirconium dioxide grey	ZrO ₂	pills	13.5 x 9.5 mm	250 g	92-007-265
	zirconium dioxide grey	ZrO ₂	pills	17.5 x 6 mm	250 g	92-007-267
	zirconium dioxide white	ZrO ₂	pills	21 x 6 mm	250 g	92-007-258
	zirconium dioxide white	ZrO ₂	pills	21 x 8 mm	250 g	92-007-260
	zirconium dioxide white	ZrO ₂	pills	21 x 8 mm	5000 g	92-007-261
	zirconium dioxide	ZrO	granules	0.5 - 4 mm	250 g	92-005-895

Evaporants for AR Coating

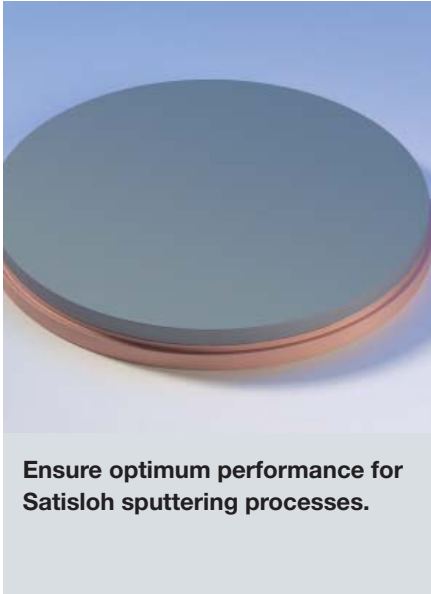
Fluorides

Satis Code	Product	Product	Form	Specification	Unit	Order No.
9870103V002	magnesium fluoride	MgF ₂	granules	1-2.5 mm	500 g	92-005-914
9870103V005	magnesium fluoride	MgF ₂	granules	1-4 mm	500 g	92-005-913
9870103V007	magnesium fluoride	MgF ₂	granules	2.5-4 mm	500 g	92-005-912

Metals

Satis Code	Product	Product	Form	Specification	Unit	Order No.
9870008S003	chromium	Cr	granules	<1 mm	250 g	92-005-985
9870008S005	chromium	Cr	granules	1-4 mm	250 g	92-005-984
9870008S007	chromium	Cr	discs	20 x 5 mm	2 pcs.	92-005-983
9870067X001	chromium	Cr	powder	<1 mm	5000 g	92-006-962

Sputtering Materials



Ensure optimum performance for Satisloh sputtering processes.

Benefits

- Optimized for Satisloh coating processes and machines
- Assure high proven quality and high performance for Satisloh Sputtering processes
- High performance materials and design
- High purity and consistency
- Process guarantee with Satisloh sputtering processes
- Lowest pre-sputtering times
- Designed for extremely high current density

Recommendations

- Store in a dry place
- Always replace a target together with seals and contact foil

Applications

Satisloh process families for sputter coaters

- EASY- COAT process family
- EASY-COAT MIRROR process family
- Customized coatings

Ordering Information

Satis Code	Product	Specification	Unit	Order No.
2000501U006	oil for roughing pump SP-100/ SP-200	bottle	1 kg	92-006-115
2000501U007	oil for turbo pump SP-100/ SP-200	bottle	1 pc.	92-005-391
2001260G200	ultrasonic cleaner TO4-310	can	5 l	92-006-079
2001260G201	lens ring cleaner TO2-124	can	5 l	
9870058K004	hydrophobic pill TOP 8	pill	5 pcs.	92-006-302
9990087NIC001	hydrophobic towelets		100 pcs.	92-006-261
	filter element ONF		1 pc.	92-006-251
	set sputtering target Si high purity with contact foil and 2 gaskets		1 pc.	92-006-308
6500717Y002	anti slip pad high performance		500 pcs.	92-006-069
6500717Y003	anti slip pad standard		2000 pcs.	92-005-880

Monitor Crystals



Used for high precision coating thickness control.

Technical Data

- Monitor crystals in diameters 12.5 and 13.9 mm
- Available with gold, silver and alloy coating
- Usable in most available coating systems

Benefits

- Proven quality
- Provide high precision

Recommendations

- Store in a dry place

Applications

- All AR processes
- All quartz monitors

Ordering Information

Satis Code	Product	Nominal Frequency	Diameter	Unit	Order No.
7500448N002	gold, full electrode	5 MHz	12.5 mm	10 pcs.	92-006-033
7500448N003	gold, double anchor	6 MHz	13.9 mm	10 pcs.	92-006-283
7500448N007	silver, full electrode	5 MHz	12.5 mm	10 pcs.	92-006-032
7500448N009	silver, double anchor	5 MHz	13.9 mm	10 pcs.	92-006-031
7500448N013	gold, single anchor	5 MHz	13.9 mm	10 pcs.	92-006-306
7500448N014	silver, double anchor	6 MHz	13.9 mm	10 pcs.	92-006-030
7500448N017	silver EBQ	5 MHz	13.9 mm	10 pcs.	92-006-029
7500448N018	gold, double anchor	5.98 MHz	13.9 mm	10 pcs.	92-005-219
7500448N020	silver, single anchor	5 MHz	13.9 mm	10 pcs.	92-006-027
7500448N021	gold, double anchor	5.97 MHz	13.9 mm	10 pcs.	92-006-026
7500448N022	alloy, double anchor	5.98 MHz	13.9 mm	10 pcs.	92-006-025

Crucible Liners for Electron Beam Evaporation



Provide optimum coating results for all electron beam guns used in Satisloh and most other coating systems.

Technical Data

- Liners are made of a special refractory material
- Specifically designed liners available for evaporating materials in pill form

Benefits

- Optimum results when utilizing Satisloh coating processes, machines and materials
- Proven quality
- Process guarantee with Satisloh processes
- Long lifetime

Recommendations

- Store in a dry place

Applications

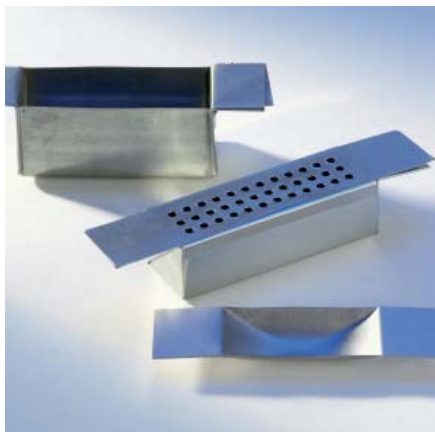
- For Satisloh coating processes using electron beam evaporation systems
- For customized coating processes using electron beam evaporation systems
- Applicable in most of the commercial electron beam evaporation systems

Crucible Liners for Electron Beam Evaporation

Ordering Information

Satis Code	Product	Dimensions	Machine Type	Material	Unit	Order No.
1500295H015	liner vol. = 4 cc	30 x 15 mm	box coaters	granules	1 pc.	92-005-113
1500295H018	liner vol. = 18 cc	47 x 20 mm	box coaters	granules	1 pc.	92-005-339
1500295H019	liner vol. = 7 cc	48.5 x 23 mm	box coaters	granules	1 pc.	92-005-134
1500295H020	liner vol. = 10 cc	38 x 20 mm	box coaters	granules	1 pc.	92-005-135
1500295H023	liner flat top	47 x 20 mm	box coaters		1 pc.	92-006-152
1500295H025	liner vol. = 1.5 cc	30 x 15 mm	box coaters	-pills	1 pc.	92-005-136
1500295H028	liner vol. = 1.5 cc	47 x 20 mm	box coaters	-pills	1 pc.	92-005-430
1500295H030	liner vol. = 1.4 cc	21 x 15 mm	box coaters	granules	1 pc.	92-005-138
1500295H031	liner CV	23 x 15 mm	box coaters	granules	10 pcs.	92-005-139
1500295H032	cover, CV	23 x 2 mm	box coaters	granules	10 pcs.	92-005-140
1500295H035	liner vol. = 22.5 cc	48.5 x 23 mm	box coaters	granules	1 pc.	92-006-150
1500295H037	liner vol. = 1.4 cc	21 x 13.5 mm	box coaters	granules	1 pc.	92-005-141
1500295H039	liner vol. = 4 cc	30 x 15 mm	box coaters	granules	1 pc.	92-005-142
1500295H040	liner vol. = 1.8 cc	23 x 15 mm	box coaters	granules	1 pc.	92-005-143
1500295H041	liner vol. = 2.85 cc	30 x 15 mm	box coaters	granules	1 pc.	92-005-340
1500295H043	liner	30 x 15 mm	box coaters	granules	1 pc.	92-005-144
1500295H044	liner vol. = 27.8 cc	50 x 23 mm	box coaters	granules	1 pc.	92-005-145
1500295H045	liner vol. = 27.8 cc	50 x 23 mm	box coaters	granules	1 pc.	92-005-146
1500295H046	liner vol. = 2.1 cc	30 x 15 mm	box coaters	-pills	1 pc.	92-005-147
1500295H047	liner 3P Vol. = 10 cc	48 x 23.5 mm	box coaters	granules	1 pc.	92-005-148
1500295H048	liner vol. = 4 cc	30 x 15 mm	box coaters	granules	1 pc.	92-005-149
1500295H051	liner vol. = 7 cc	30 x 15 mm	box coaters	-pills	1 pc.	92-005-150
1500295H053	liner vol. = 18.5 cc	38 x 28 mm	box coaters	granules	1 pc.	92-005-151
1500295H057	liner vol. = 7 cc	47 x 20 mm	box coaters	granules	1 pc.	92-006-146
1500295H070	liner vol. = 2.4 cc	39 x 28 mm	box coaters	granules	1 pc.	92-005-152
1500295H086	liner vol. = 7.7 cc		box coaters	granules	1 pc.	92-006-426
1500295H087	liner vol. = 10 cc		box coaters	granules	1 pc.	92-006-141
1500295H092	liner vol. = 9 cc		box coaters	granules	1 pc.	92-005-153
1500295H093	liner vol. = 2.4 cc		box coaters		1 pc.	92-005-154

Evaporation Boats for Thermal Sources



High quality evaporation boats used for all thermal sources in Satisloh coaters and most other coaters.

Technical Data

- Liners are made of special refractory metals

Benefits

- Optimized for Satisloh and other coating processes, machines and materials
- Proven quality
- Process guarantee with Satisloh processes
- Longlife

Recommendations

- Store in a dry place

Applications

- For Satisloh coating processes with thermal evaporation
- For customized coating processes using thermal sources
- Applicable in most of the commercial thermal sources

Evaporation Boats Molybdenum

Satis Code	Product	Machine Type	Material	Unit	Order No.
0300112V001	crucible EV.IN 1	bell coaters with EV.IN 1 system	color substances	50 pcs.	92-006-191
0300112V002	crucible EV.IN 2	bell coaters with EV.IN 1 system	color substances	50 pcs.	92-006-190
0302005R001	boat no. 4	bell coaters, Metallux	color substances	1 pc.	92-006-176
0302005R003	crucible no. 10	bell coaters, Metallux	color substances	10 pcs.	92-006-174
0302005R006	cover for boat	bell coaters, Metallux	color substances	100 pcs.	92-006-171
0302005R009	cover for boat NP	bell coaters, Metallux	color substances	100 pcs.	92-006-168
1500148X001	cover for boat, 3 holes	bell coaters	color substances	100 pcs.	92-006-284
1500172G001	boat no. 2	bell coaters	color substances	50 pcs.	92-006-289
1500172G006	boat no. 2D	bell coaters	color substances	50 pcs.	92-006-282
1500172G002	boat no. 3	bell coaters	color substances	50 pcs.	92-006-281
1500172G004	boat no. 5	bell coaters	color substances	50 pcs.	92-006-297
1500172G005	boat no. 6	bell coaters	color substances	50 pcs.	92-006-163
1500172G007	boat no. 6D	bell coaters	color substances	50 pcs.	92-005-129
1500172G008	boat no. 6S	bell coaters	color substances	50 pcs.	92-006-162
1500295H001	boat no. 7	box coaters, 900, 1200 series	color substances	10 pcs.	92-006-298
1500295H004	boat no. 10	bell coaters	color substances	10 pcs.	92-006-159
1500295H005	boat CV	box coaters, 900, 1200 series	color substances	10 pcs.	92-006-295
1500295H006	boat no. 12	box coaters	color substances	10 pcs.	92-006-158
1500295H009	boat no. 14	box coaters	color substances	10 pcs.	92-006-157
1500295H014	cover for boat no. 6	bell coaters	color substances	10 pcs.	92-006-156
1550341N002	boat 150	drum coater 150, thermal source	color substances	10 pcs.	92-006-139
1550341N001	boat 150B	drum coater 150, thermal source	color substances	10 pcs.	92-006-292
1550341N004	boat 150D	drum coater 150, thermal source	color substances	10 pcs.	92-005-156
1550382E001	cover for boat 150D	drum coater 150, thermal source	color substances	100 pcs.	92-006-137

Evaporation Boats for Thermal Sources

Tantal Boat

Satis Code	Product	Machine Type	Material	Unit	Order No.
1500169V001	boat AR-4	bell coaters	AR substances	10 pcs.	92-006-164
1500170T001	boat AR-4D	bell coaters	AR substances	10 pcs.	92-006-288
1500171U001	boat ARS	bell coaters	AR substances	10 pcs.	92-006-286
1500295H054	boat BCA	box coaters		20 pcs.	92-006-147

Wolfram Boat

Satis Code	Product	Machine Type	Material	Unit	Order No.
1500295H002	boat no. 8	thermal sources	HSAK	50 pcs.	92-006-287

Filaments for Electron Beam and Ion Sources



High quality filaments for electron beam guns and ion guns for Satisloh coaters and most other coaters.

Benefits

- Proven quality
- Process guarantee for Satisloh processes

Recommendations

- Store in a dry place

Applications

- Electron beam guns, ion guns and EV.IN thermal sources for Satisloh coating systems
- Customized coating processes using thermal sources

Ordering Information

Satis Code	Product	Specification	System	Unit	Order No.
0300111R001	filament EV.IN	EV.IN	EV.IN	50 pcs.	92-006-192
6500417S001	filament	ESV3	E.B.-Gun ESV3	1 pc.	92-006-428
7500336J001	filament	ESV6 standard	E.B.-Gun ESV6	10 pcs.	92-006-276
7500336J003	filament S	ESV6	E.B.-Gun ESV6	10 pcs.	92-006-277
7500336J005	filament	VTD	E.B.-Gun VTD	1 pc.	92-005-201
7500800Q101	filament	Mark II	ion gun Mark II	10 pcs.	92-006-293
7500800Q131	filament	Mark I	ion gun Mark I	10 pcs.	92-006-294
7500823P005	filamente + gauge	standard emitter	Temescal E.B.-Gun	5 pcs. + 1 pc.	92-005-229
7500823P032	filament H.P.E.	high performance emitter	Temescal E.B.-Gun	10 pcs.	92-005-233
7500823P122	filament TL	standard emitter	Temescal E.B.-Gun	5 pcs.	92-006-285
7500800Q147	filament	Mark II +	ion gun Mark II +	10 pcs.	92-007-277
7500800Q443	filament	Mark I +	ion gun Mark I +	10 pcs.	92-007-547

Consumables for Electron Beam Guns

Benefits

- Proven quality
- Process guarantee for Satisloh processes

Recommendations

- Store in a dry place

Applications

- All evaporation processes for optical applications

Satisloh offers a large variety of high quality standard and customized consumables for electron beam guns.

Recommendations

- Store in a dry place

Applications

- For all coating processes

Test glasses



Satisloh test glasses monitor the quality of coatings.

Ordering Information

Satis Code	Product Shape	Dimensions	Surface	Unit	Order No.
0302001Q001	round	54.8 mm	mirror	100 pcs.	92-006-181
1500177D001	round	40 mm	clear	100 pcs.	92-006-161
7000484Y001	round	24.6 mm	frosted	100 pcs.	92-005-197
8000471F001	rectangular	40 x 44.5 mm	clear	100 pcs.	92-005-877
8000471F005	rectangular	40 x 44.5 mm	mirror	100 pcs.	92-005-429
8000471F006	square	45 x 45 mm	frosted	100 pcs.	92-005-882
8000471F007	rectangular	54.5 x 40 mm	clear	100 pcs.	92-006-430
8000471F008	rectangular	54.5 x 40 mm	mirror	100 pcs.	92-006-431
8000471F009	square	45 x 45 mm	clear	100 pcs.	92-005-536
8000657J002	round	54.8 mm	clear	100 pcs.	92-005-999
8000657J005	round	54.8 mm	mirror	100 pcs.	92-005-998



Contact

Satisloh AG
Neuhofstrasse 12
CH - 6340 Baar
Switzerland
Phone: +41 (0) 41766 16 16
Fax: +41 (0) 41766 16 10
Mail: info@satisloh.com

www.satisloh.com

Please use for ordering:

Satisloh GmbH
Wilhelm-Loh-Str. 2-4
35578 Wetzlar
Germany
Phone: +49 (0) 6441/912-0
Fax: +49 (0) 6441/912-433
Email: consumables@satisloh.com

satisloh®