

# CONSUMABLE PRODUCT CATALOGUE

Consumable products carefully chosen and rigorously tested to ensure optimum performance from Logitech equipment



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# OPTIMUM PERFORMANCE







Logitech consumables are carefully chosen to work in unison with our sample processing systems to obtain optimum performance and maximise system life-span. Through our extensive experience in materials processing, we have gained a tremendous amount of knowledge on consumables and how best to use them. As a result, we source only the highest quality products and rigorously test them on the quality of result produced and on the suitability for the many precision materials processing applications for which Logitech systems are used. In fact, our selection process is so thorough that we only use Logitech consumables in our own laboratory.

# PRODUCT

# **ABRASIVE POWDERS**

Calcined Aluminium Oxide Silicon Carbide Fused Aluminium Oxide Boron Carbide Ultra Fine Aluminium Oxide Cerium Oxide Diamond Polishing Powder

# POLISHING CLOTHS & PADS

Chemcloth Polishing Cloths Chemical Mechanical Polishing

# POLISHING CARRIER FLUIDS & SUSPE

Polishing Suspensions Polishing Carrier Fluids Logipol Haze Inhibitor

# **DIAMOND SUSPENSIONS**

Diamond Suspension Logipol Hyper Diamond Suspe

# SAW BLADES & CUTTING WIRES

# MOUNTING MEDIA

Temporary & Permanent Moun Cleaning Fluids & Powders

**GLASS MICROSCOPE SLIDES** 

**GLASS COVERSLIPS** 

CARRIER DISCS & SUBSTRATES

WAFER TEMPLATES

**GENERAL SUPPLIES** 

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# CALCINED ALUMINIUM OXIDE POWDERS



## PARTICLE SIZE DISTRIBUTION



## Logitech Calcined Aluminium Oxide suitable for a wide range of precision Powders are produced using a unique lapping and polishing operations and process which grades particles in sizes offer many advantages. and shape more closely than possible by normal means. This makes it

especially effective when used on

hard materials such as ceramics,

The particles produced by this

process are flat, and tend to lie

processed. Working pressure is,

therefore, more evenly spread,

period. Due to the close grading

and flat particle shape, calcined

aluminium oxide powders are

abrasiveness is retained for a longer

parallel to the surface being

silicon and hardened steel.

These include:

- Improved Surface Finish by keeping the lapping / polishing time constant, substantial surface finish improvements can be obtained.
- Increased Particle Size Due to the surface quality improvements, larger particle sizes can be used to produce the same quality of components. This breakdown of particles is reduced and provides distinct improvements in normal process times and leads to greater production output in addition to higher quality surfaces

# SILICON CARBIDE POWDERS



Silicon Carbide is a lapping/polishing • Silicon wafer backthinning compound suitable for the fine lapping of a range of geological, semiconductor and optical materials.

Logitech Silicon Carbide Powders are manufactured for use in high precision lapping and polishing operations. Supplied in a wide range of grit sizes, these high quality abrasive powders can be used where repeatability of material removal rate is required.

Typical applications include:

• Thin rock section production

## **TYPICAL CHEMICAL ANALYSIS (%)**

Silicon Carbide:	97.60
SiO <sub>2</sub> :	0.60
Si:	0.80
Fe:	0.20
AI:	0.30
Carbon:	0.50
Magnetic Iron:	0.04

# CALCINED ALUMINIUM OXIDE LAPPING POWDERS

Code	Micron Size	Pack Size	Description
0CON-007	1	5 kg	Suitable for high precision optical component polishing, & as the final polishing stage for certain types of thin rock section.
0CON-008	3	5 kg	The most commonly used particle size. Suitable for a wide range of fine lapping applications with semiconductor and optical materials.
0CON-009	9	5 kg	Used for rapid stock removal on delicate semiconductor materials, such as GaAs and optical components.
0CON-010	12	5 kg	Applications include initial lapping of piezo-electric crystals prior to final lapping with 3 and 1 micron abrasives.
0CON-011	15	5 kg	Suitable for initial lapping of precision optical components and for final polishing of "hard" material components.
0CON-012	20	5 kg	Applications include "backlapping" of silicon wafers and fine lapping of quartz and sapphire components.
0CON-013	30	5 kg	Used for coarser lapping of components such as mechanical seals, or with semiconductor and optical materials where high stock removal rates are required.
0CON-030	50	5 kg	Used for coarser lapping of components such as mechanical seals, or with semiconductor and optical materials where high stock removal rates are required.

# SILICON CARBIDE LAPPING POWDERS

Code	Micron Size	Pack Size	Description
0CON-006	3	5 kg	Fine lapping / polishing compound sui semiconductor and optical materials (
0CON-001	5	5 kg	Fine lapping / polishing compound sui semiconductor and optical materials (
0CON-002	9	5 kg	Applications include petrographic thin
0CON-003	17	5 kg	Suitable for coarse lapping application
0CON-004	29	5 kg	Mean particle size 29 microns (320 gri
0CON-005	45	5 kg	Mean particle size 45 microns (240 gri

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- Processing of ferrites and other ceramic components
- Calcified tissue thin section production

Silicon Carbide abrasive is also recommended for lapping the chuckface of the Logitech Precision Lapping and Polishing Jigs and fixtures to restore chuckface parallelism.

## **PRODUCT DATA**

Product:	Silicon Carbide Lapping
	Powder
Colour:	Dark grey
oH:	6.8 - 7.2
Shape:	Blocky, with sharp edges
Grading:	FEPA 42-GB-1984
Bulk Density:	FEPA 44-GB-1986
Surface Chemistry:	FEPA 26-GB-1968
Knoop100 Hard No:	2480
Specific Gravity:	3.2g/cc
Crystal Structure:	Hexagonal
racture:	Conchoidal
Grading: Bulk Density: Gurface Chemistry: Knoop100 Hard No: Specific Gravity: Crystal Structure: Fracture:	FEPA 42-GB-1984 FEPA 44-GB-1986 FEPA 26-GB-1968 2480 3.2g/cc Hexagonal Conchoidal

itable for fine lapping of a range of geological, (1200 grit).

itable for fine lapping of a range of geological, (1000 grit).

rock section production and silicon wafer lapping (600 grit).

ons or where rapid material removal is required (400 grit).

rit).

rit).

# FUSED ALUMINIUM OXIDE POWDERS & BORON **CARBIDE POWDERS**



## **TYPICAL CHEMICAL ANALYSIS (%)**

Product Type:
Colour:
pH:
Hardness, Moh:
Grading:
Specific Gravity:
Particle Shape:

Fused Aluminium Oxide Grey Brown 7.5 - 8.5 9.0 FEPA 42-GB-1984 3.8 Equi-dimensional

These powders are manufactured for Logitech boron carbide lapping use in lapping operations where high precision finishes are specified on hard materials.

Logitech Fused Aluminium Oxide powders are manufactured to comply boron carbide include the processing with the exacting standards required of ceramic materials, very hard optical for precision lapping and optical polishing operations. Formulated for treated alloys and very hard mineral rapid stock removal, with high quality sections. surface finish, these abrasives will perform with outstanding efficiency. They have excellent cleanliness and capillarity and are low in magnetic content.

powders are very hard abrasives filling the need for an abrasive powder which is harder than silicon carbide, but less expensive than diamond. Applications for use of materials such as sapphire, heat

## **PRODUCT DATA**

Aluminium Oxide:	96.00
Silica:	1.10
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> ):	0.25
Titanium Oxide:	2.55
Product Type:	Boron Carbide
Colour:	Black
pH:	N/A
Percentage content:	98%
Density:	3.95
Particle Shape:	Granular

# FUSED ALUMINIUM OXIDE LAPPING POWDERS

Code	Micron Size	Pack Size	Description
0CON-017	3	5 kg	Fine Lap
0CON-018	5	5 kg	Ť
0CON-019	9	5 kg	
0CON-021	15	5 kg	ı Rough Lap

A range of micron sizes, enabling precision materials to be processed from the initial roughing stage through to fine lapping and polishing.

These powders are carefully processed to ensure correct particle size distribution. Particle shape is as uniform as the most advanced manufacturing techniques will permit.

# **BORON CARBIDE LAPPING POWDERS**

0CON-024	1000	1 kg	Fine Lap
0CON-025	600	1 kg	Ť
0CON-026	400	1 kg	
0CON-027	320	1 kg	
0CON-028	240	1 kg	
0CON-029	180	1 kg	
0CON-514	240	5 kg	Rough Lap

A range of micron sizes, enabling precision materials to be processed from the initial roughing stage through to fine finishing.

Manufacture and quality control procedures used in the production of these powders ensure that the end product is exceptionally clean and closely sized.

# ULTRA FINE ALUMINIUM OXIDE POWDERS & CERIUM **OXIDE POWDERS**



Logitech powders are manufactured Materials processing applications for to comply with the exacting standards Ultra Fine Aluminium Oxide Powders required for precision lapping and include: optical components, ferrite optical polishing abrasives. Suitable components, plastics, metallographic for processing a wide variety of micro sections, ceramics, electro-optic materials including semiconductors, materials and semicondcutor wafers. precision optics and metallographic micro sections. Cerium Oxide Polishing Powders

Logitech Ultra Fine Aluminium Oxide Polishing Powders are sub-micron powders produced in a special process using the calcination of alum. They are chemically inert, fast cutting abrasives, suitable for a wide variety of lapping/polishing plate types. All three types can be used in suspension, slurry or paste form by mixing with water.

## **PRODUCT DATA**

Aluminium Oxide Powder
White, tan or grey powder
None
95-99%
2980 °C
2045 °C
Insoluble in water and
solvents

# ULTRA FINE ALUMINIUM OXIDE POLISHING POWDERS

Code	Micron Size	Pack Size	Description
0CON-014	0.05	2 kg	Gamma alumina: The least aggressive Used for final surface polish of a wide
0CON-015	0.3	2 kg	Alpha alumina: Rapid cut, produces sr Used as a pre-polish on many surfaces
0CON-016	1.0	2 kg	Alpha alumina: Provides an aggressive stages prior to processing with 0.3 or (

# CERIUM OXIDE POLISHING POWDERS

0CON-260	0.5	1 kg	Opaline grade for high quality finishing
0CON-023	3	1 kg	CC2 grade for optical polishing of stan

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are rare earth polishing media, formulated for the final polishing of materials to "optical" polishing standards. Suitable for use with pitch and polyurethane polishing plates and a wide variety of polishing cloths, these powders offer the highest quality performance and uniform surface finish on a wide range of glasses and electro-optic materials.

Product Type: Colour: Bulk Density: Mean Particle Size:

Cerium Oxide Powder Cream 1.7 ±0.2 grams/cc 3.0 microns ±1

of the ultra fine aluminas due to the extremely small crystal size. variety of materials.

nooth mirror like finish on metal composites and ceramic surfaces. s or a final polish on optical materials.

e cutting action, and is often used for the initial surface preparation 0.05 micron aluminas.

for optical and electro-optical components.

dard optical and electro-optical components.

# DIAMOND POLISHING POWDERS



## **PRODUCT DATA**

Product Type:	Diamond
Colour:	White
Specific gravity:	3.513
Soluble:	No

Code	Micron Size	Pack Size	Description
0CON-276	1	4g	Economic choice for thin section polishing. Finest polish finish.
0CON-277	3	4g	Economic choice for thin section polishing. Fine polish finish.
0CON-279	1	4g	Economic choice for thin section polishing. Rapid stock removal.
0CON-278	6	4g	Polycrystalline diamond is more efficient for polishing. Finest polish finish.
0CON-280	3	4g	Polycrystalline diamond is more efficient for polishing. Fine polish finish.
0CON-281	6	4g	Polycrystalline diamond is more efficient for polishing. Rapid stock removal.
0CON-282	50	20g	Lapping of ultra hard ceramics and CVD diamond films.
0CON-322	25	20g	Lapping of sapphire substrates.
0CON-325	15	20g	Lapping of sapphire substrates.
0CON-328	9	20g	Lapping of sapphire substrates.

Particularly useful for polishing small Applications include: rock specimens, minerals, thin sections and metallic ores where specific lubricant carriers are required.

offer the ultimate in quality and

Mix with polishing carrier fluids.

economy of operation and can be

used with a wide variety of soft metal

polishing plates and polishing cloths.

Geological Specimens

- Sapphire/Gallium Nitride
- Logitech Diamond Polishing Powders Metals
  - Silicon Carbide
  - CVD Diamond

Polycrystalline particles breaks down more readily than their monocrystalline counterparts, resulting in more crystal facets being revealed. This, in turn, produces a faster polishing process due to the sharper edges.

- Laser Rods

# CHEMCLOTH POLISHING CLOTHS



Polyurethane based suitable for final Chemcloth polishing cloths are polishing of delicate semiconductor materials such as Gallium Arsenide with Chemlox polishing fluid.

Logitech Chemcloth polishing cloths are designed to satisfy the exacting Chemcloth is ideally suited to a variety requirements of Chemical Mechanical of polishing processes including: Polishing (CMP). The black napped • Production polishing due to the cloth's superior wear resistance and subsequent long life. urethane surface layer is intrinsic to the substrate giving superior Finishing under corrosive acid and alkaline conditions because of its ability to produce perfect polishes nap strength and longer pad life. Incorporating a vertically oriented pore structure with a compressible in less time. substrate which is designed to High speed polishing operations due to its superior nap strength instantly recover from compression and thereby enhances slurry flow.

Code	Diameter	Pack Size	Machine Compatability
0CON-350	8"/200mm	10	Compact 50 System
0CON-352	12"/300mm	10	PM6
0CON-353	14"/350mm	10	LP50/CP3000
0CON-471	16"/400mm	10	LP70/Akribis-air/Tribo
0CON-354	18"/450mm	10	CP4000
0CON-356	20"/508mm	10	CDP
0CON-355	22"/560mm	10	DP1
0CON-357	24"/610mm	10	Orbis
0CON-358	27.6"/700mm	1	DP4
0CON-505	16"/400mm	10	Pre-grooved cut to size, compatible with various system

supplied with a protected selfadhesive backing and each pack is hermetically sealed in a polythene sachet.

### Description

Chemcloth pads are polyurethane based and incorporate a vertically orientated pore structure with a compressible substrate which is designed to instantly recover from compression and thereby enhances slurry flow. This reduces pad loading and increases pad life.

Suitable for polishing delicate semiconductor materials such as Gallium Arsenide with Chemlox polishing fluid.

All Logitech polishing clothes are supplied in self adhesive backed form.

# POLISHING CLOTHS & PADS



The Logitech range of polishing cloths This ensures that samples are provides a comprehensive selection of produced to the highest quality of materials for fine surface polishing of surface finish while obtaining the best the widest range of sample types.

Logitech Chemical Mechanical Polishing (CMP) cloths are manufactured specifically for CMP processes and are used on various systems including the PM6, LP70, Tribo and Orbis.

Carefully chosen because of texture and for their capability to retain abrasive on the cloth surface in an efficient and economic manner.

Code	Micron Size	Pack Size	Description
0CON-399	12"/300mm	5	EP1-P
0CON-398	12"/300mm	5	EP1-G
0CON-387	12"/300mm	5	EP2-P
0CON-386	12"/300mm	5	EP2-G
0CON-401	14"/350mm	5	EP1-P
0CON-400	14"/350mm	5	EP1-G
0CON-389	14"/350mm	5	EP2-P
0CON-388	14"/350mm	5	EP2-G
0CON-481	16"/400mm	1	EP1-P
0CON-482	16"/400mm	1	EP1-G
0CON-483	16"/400mm	1	EP2-P
0CON-484	16"/400mm	1	EP2-G
0CON-377	20"/508mm	1	EP1-P
0CON-367	20"/508mm	1	EP1-G
0CON-370	22"/550mm	1	EP1-G
0CON-385	22"/550mm	1	EP2-G
0CON-487	24"/600mm	1	EP1-P
0CON-488	24"/600mm	1	EP1-G
0CON-489	24"/600mm	1	EP2-P
0CON-490	24"/600mm	1	EP2-G
0CON-392	28"/700mm	1	EP1-G
0CON-393	28"/700mm	1	EP2-G

# EP1

The EP1 has a foamed elastomer structure with controlled cells. Its unique structure and high hardness improves planarity and is designed for optimum polishing of Silicon, Sapphire and optical materials. Shore A Hardness 97

possible surface flatness.

### EP2

The EP2 has a micro-cellular structure that enables it to act in a "sponge like" manner, while maintaining the hardness and flatness. Pads are supplied with a pressure sensitive adhesive backing, excellent flatness control and fast polishing.

## Shore A Hardness 86

P (Plain) Designed for surfaces less than 20cm<sup>2</sup> Designed for surfaces greater than 20cm<sup>2</sup> G (Grooved)

# POLISHING CLOTHS & PADS



Perfect for delivering optimal removal rates, with low global non-uniformity & defects.

CMP applications (e.g. oxide, nitride and copper). They have an open pore structure with various urethane compression selectibility compositions. They are ideal for low to medium pressure applications.

Code	Diameter	Pack Size	Machine Compatability	
0CON-360	8"/200mm	10	Compact 50	Shore A
0CON-361	10"/250mm	10	Compact 50	Shore A
0CON-362	12"/300mm	10	PM6/PM5	Shore A
0CON-342	12"/300mm	5	PM6/PM5	Shore [
0CON-363	14"/350mm	10	LP50/CP3000	Shore A
0CON-343	14"/350mm	5	LP50	Shore D
0CON-323	14"/350mm	5	LP50	Shore A
0CON-474	16"/400mm	1	LP70/Akribis-air/Tribo	Shore [
0CON-473	16"/400mm	1	LP70/Akribis-air/Tribo	Shore A
0CON-472	16"/400mm	1	LP70/Akribis-air/Tribo	Shore A
0CON-364	18"/450mm	10	CP4000	Shore A
0CON-381	20"/508mm	1	CDP	Shore D
0CON-382	20"/508mm	1	CDP	Shore A
0CON-365	22"/560mm	10	DP1	Shore A
0CON-479	24"/600mm	1	Orbis	Shore [
0CON-478	24"/600mm	1	Orbis	Shore A
0CON-477	24"/600mm	1	Orbis	Shore A
0CON-383	28"/700mm	1	DP4	Shore A

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These cloths are suitable for various

Des	cription	
- 92	GC	Suba IV (SBIV)
- 92	GC	Suba IV pads feature an open pore structure and a less aggressive urethane composition that
- 92	GC	pressure applications with fragile crystals or
- 57	IC1000	conjunction with a IC1000 pad.
- 92	GC	
- 57 - 67 - 68	IC1000 Stacked with Suba IV SBX	<b>Suba X (SBX)</b> Suba X is a denser, harder pad with a smaller pore structure than our Suba IV pad. It is often
- 57	IC1000	consistent, reproducible results.
- 67	SBIV	IC1000
- 68	SBX	The IC1000 pad is made of rigid, microporous polyurethane. This allows it to planarize across
- 92	GC	wide gaps, providing excellent removal rates and localised uniformity. The small pore structure
- 57	IC1000	works with slurries to minimize scratching and provide optimum polishing performance.
- 67	SBIV	Geochem (GC)
- 92	GC	The Geochem cloth is firm, dense and non-woven polishing cloth with absorbent fibres, providing a
- 57	IC1000	high level of flatness. This cloth is often used with a diamond slurry for polishing geological samples
- 67	SBIV	or chemical polishing of III-V semiconductor materials.
- 68	SBX	
- 67	SBIV	

# POLISHING CARRIER FLUID & POLISHING SUSPENSIONS



Colloidal silica, sub-micron alumina and chemo-mechanical polishing suspensions.

Logitech Polishing Suspensions have been developed to suit a wide range of polishing applications in the semiconductor and opto-electronic industries. Both of these products produce polishes of the highest quality and are produced at our own purpose-built materials processing laboratories.

## **PRODUCT DATA**

Product Type:	SF1 Polishing Fluid
Colour:	Opaque
pH:	(At G/1 H₂O) 9.2-10.1
Boiling Point:	100 °C (212 °F)
Product Type:	Chemlox Polishing Fluid
Colour:	White Suspension
pH:	11.4
Boiling Point:	100 °C (212 °F)
Product Type:	Logipol CS60
Colour:	White Suspension
pH:	8.5
Boiling Point:	100 °C (212 °E)

Product Type:Logipol CMD30Colour:Semi-opaquepH:6-8Boiling Point:100 °C (212 °F)Product Type:Logipol 35Colour:White SuspensionpH:11.5-12.5Boiling Point:100 °C (212 °F)

0.0	(-		
Code	Туре	Quantity	Description
0CON-141	Chemlox	4 litres	Sodium hypochlorite based polishing fluid, with a high pH. Suitable for chemo-mechanical polishing of GaAs, InP and similar semiconductors.
0CON-140	SF1	5 litres	Alkaline colloidal silica. Suitable for polishing silicon wafers and a wide range of optical / electro- optical components.
0CON-137	SF1	25 litres	Alkaline colloidal silica. Suitable for polishing silicon wafers and a wide range of optical / electro- optical components.
0CON-511	Logipol CS60	4.5 litres	Logipol 60nm Colloidal Silica polishing soltuion for polishing III-V semiconductor materials including Indium Phosphide
0CON-510	Logipol CS60	22.7 litres	Logipol 60nm Colloidal Silica polishing soltuion for polishing III-V semiconductor materials including Indium Phosphide
0CON-509	Logipol CMD 30	3.78 litres	Logipol CMD30 3 micron polishing fluid used in polishing hard material substrates including Silicon Carbide/Silicon/ Alumina/Ceramic
0CON-508	Logipol CMD 30	18.9 litres	Logipol CMD30 3 micron polishing fluid used in polishing hard material substrates including Silicon Carbide/Silicon/ Alumina/Ceramic
0CON-507	Logipol CS20 Polishing	2 litres	Logipol CS20 20nm Colloidal Silica polishing fluid is used in polishing/planarisation of IC's/dies
0CON-493	Logipol 35	4 litres	Logipol 35 polishing fluid is a Sodium Hypochlorite based additive for III-V and II-VI semiconductor wafer polishing - can be mixed with Alumina or Colloidal Silica based polishing slurries to improve polishing rate

# POLISHING CARRIER FLUID & POLISHING SUSPENSIONS



Alcohol, oil based fluids and extenders for use with water soluble materials.

Logitech Ethane Diol contains excellent properties to assist the polishing process of water soluble materials. Ethane Diol is an effective slurry carrier with many powders including diamond, silicon carbide and aluminium oxide.

Logipol Haze Inhibitor is a hazeinhibiting polishing additive specifically formulated to help limit the time required for haze removal during the polishing process, used in the post polishing process for Silicon and other II-IV and III=-V materials. Can be used to store wafers in a wet

## PRODUCT DATA

0CON-502

Product:	Logitech Ethane Diol
Colour:	Colourless viscous liquid
Gravity:	1.11
Boiling Point:	197 °C (386 °F)
Freezing Point:	-12.3 °C (9.86 °F)

# POLISHING CARRIER FLUIDS

	Code	Quantity	Description
	0CON-128	5 litres	Oil Based Suspension Fluid. Used in conj applications.
	0CON-133	5 litres	Ethane Diol. For use with silicon carbide soluble materials.
	0CON-134	5 litres	Ethane Diol Plus. Has a higher purity tha content for use with water soluble mater
	0CON-135	5 litres	K-43 Polishing Fluid. Suitable for use wit water soluble materials and IR materials
L	.OGIPOL	HAZE	INHIBITOR
	0CON-501	3.8 litres	

Used in the polishing process of Silicon and other II-IV and III-V materials.

19 litres

clean room environment. It can also be used in Static/Dynamic Templates to hold the wafer on the napcon insert during the polishing process.

junction with Diamond Powder for geological thin section

e and aluminium oxide powders when processing water

an standard ethane diol and contains a reduced (1%) water rials.

th diamond or aluminium oxide powders when polishing

# DIAMOND SUSPENSIONS & HYPER DIAMOND **SUSPENSIONS**



## LOGIPOL HDS PARTICLES

Logitech Diamond Suspensions are high performance water based diamond suspensions containing exclusively polycrystalline diamonds.

Logitech Diamond Suspensions containing exclusively polycrystalline diamonds, used to provide the highest quality preparation, faster removal rates and a finer finished surface. They are stable and retain their properties from the beginning of rates, small cutting points produce the preparation to the very end. They offer very good materials removal and do not settle or clog the dosing system.

Logipol Hyper Diamond Suspension (HDS) designed for lapping &

polishing applications proves extremely effective on hard material substrates including:

- Silicon Carbide
- Silicon
- Alumina
- Ceramics

Each particle has more cutting points and achieves higher material removal lower surface roughness, rough particle surface improves retention in any bond system and consistent friability ensures particles will not crush under the load of lapping and polishing for extended life.

# SAW BLADES & CUTTING WIRES



Logitech supply a wide range of saw blades and cutting wires for use with our precision saws, designed to meet a wide range of requirements within an extremely diverse range of materials processing applications.

The range of saws produced by the small scale laboratory, producing high quality thin sections, through to batch production of valuable crystal materials.

Code	Diameter	Pack Size	Machine
0CON-203	8"/200mm	1	AXL1 Saw
0CON-205	10"/250mm	1	CS10 Saw
0CON-206	8"/200mm	1	CS30 Saw
0CON-208	6"/150mm	1	Model 15 Saw
0CON-209	6"/150mm	1	Model 15 Saw
0CON-210	4"/100mm	1	Model 15 Saw
0CON-215	4"/100mm	1	Model 15 Saw
0CON-216	6"/150mm	1	Model 15 Saw
0CON-219	0.3mm	5	Model 15 Saw
0CON-220	0.2mm	5	Model 15 Saw
0CON-283	10"/250mm	1	APD1 Saw
0CON-284	12"/300mm	1	APD1 Saw
0CON-294	10"/250mm	1	APD1 Saw
0CON-320	6"/150mm	1	APD1 & APD2 Saw
0CON-321	4"/100mm	1	APD1 & APD2 Saw
0CON-329	12"/300mm	1	GTS1 Saw
0CON-330	6"/150mm	1	APD2 Saw
0CON-230	0.2mm	1	APD1 Saw
0CON-231	0.25mm	1	APD1 Saw
0CON-515	0.37mm	5	Model 15 Saw
0CON-516	0.23mm	5	Model 15 Saw



# **DIAMOND SUSPENSIONS**

Code	Micron Size	Pack Size	Description	
0CON-315	1	500ml	Containe biole quellitur	a baar ata Uta a dia mana da
0CON-314	3	500ml	Alcoh Constants nign quality p Alcoh	nol free. suspension.
0CON-313	5	500ml		

# LOGIPOL HYPER DIAMOND SUSPENSIONS (HDS)

0CON-513 2-4 1 ltr Suitable for hard material substrates Silicon Carbide, Silicon, Alumina, Ceramics. 0CON-512 1-3 1 ltr

11

- The main application areas include:
- Geology and Thin Rock Section production
- Semiconductors i.e. Gallium Arsenide
- Logitech cater for the requirements of Electro-optics i.e. Lithium Niobate and similar materials
  - Optics i.e. Laser Rods, Nd:YIG, Nd:YAG etc.

### Description

Diamond rimmed annular blade for the AXL1 saw.

- Diamond Cut-off blade. Blade thickness 1.6mm, 15.9mm arbor for the CS10 saw.
- Diamond cut-off blade, suitable for cutting most common rock types on the CS30
- Thin rimmed diamond blade for the Model 15 saw. Blade thickness 0.25mm, 12.7mm arbor.
- Rimmed diamond blade for the Model 15 saw. Blade thickness 0.4mm and t-size 0.5mm with 12.7mm arbor.
- Thin rimmed diamond blade for the Model 15 saw. Blade thickness 0.3mm, t-size 0.4mm with 12.7mm arbor.
- Silicon Carbide blade, 180 grit for the Model 15 saw. Blade thickness 0.3mm, 12.7mm arbor.
- Silicon Carbide blade, 320 grit for the Model 15 saw. Blade thickness 0.5mm, 12.7mm arbor.
- 60 micron diamond wire, for minimal damage cutting of delicate crystal materials
- 60 micron diamond wire, for minimal damage cutting of delicate crystal materials
- Diamond rimmed annular blade for the APD1 saw.
- Diamond rimmed annular blade for the APD2 saw.
- Diamond rimmed annular blade for the APD1 saw, 320 grit.
- Diamond rimmed blade (12.7mm bore) for APD1 and APD2 saws.
- Diamond rimmed blade (12.7mm bore) for APD1 and APD2 saws.
- Diamond cut-off blade, suitable for cutting most rock types on the GTS1
- saw.
- Diamond rimmed blade (12.7mm bore) for APD2 saws. Blade thickness 0.2mm.
- Steel cutting wire for AWS1 Abrasive Wire Saw.
- Steel cutting wire for AWS1 Abrasive Wire Saw.
- Diamond cutting wire 60 micron for high quality cutting with improved parallelism and perpendicularity. For Sapphire and Opto-electronic applications.
- Diamond cutting wire 60 micron for high quality cutting with improved parallelism and perpendicularity. For Sapphire and Opto-electronic applications.

# MOUNTING MEDIA

# **GLASS MICROSCOPE SLIDES**



Logitech's range of mounting media includes:

- Epoxy resins for sample impregnation for permanent bonding applications.
- UV Resisn for fast curing.
- A range of bonding waxes for low/high temperatures.
- Thermoplastic coverslip mounting media and bonding resins.



Logitech slides meet optical qualities such as flatness, planarity, homogeneity, reflective index and dispersive power to the most exacting benefit the user with sand blasted industry standards.

Logitech Glass Microscope Slides are used for the permanent mounting of thin rock, concrete and soil thin sections.

These microscope slides are manufactured to stringent production quality control procedures, ensuring flatness and the elimination of bubbles, seeds, striae and other imperfections.

## **TEMPORARY & PERMANENT MOUNTING ADHESIVES**

Code	Туре	Pack Size	Bond Type	Description
0CON-185	Epoxy Pack 301	454g	Permanent	2 part epoxy resin, RI 1.54. Suitable for a wide range of mounting and impregnation applications including thin rock section bonding.
0CON-185- 10	Epoxy Pack 301	4.5kg	Permanent	2 part epoxy resin, RI 1.54. Suitable for a wide range of mounting and impregnation applications including thin rock section bonding.
0CON-186	UV Resin	50ml	Temporary	Ultraviolet light curing urethane acrylic resin. Suitable for temporary, controlled thickness bonding applications.
0CON-193	Wax	4 ingots	Temporary	Thin Film Bonding Wax, 50-55 °C melting point, is ideal for holding substrates in place during slicing, dicing.
0CON-199	Wax	454g	Temporary	Plasticised General Bonding Wax. Melting point 57 - 59 °C. Suitable for a wide range of temporary specimen bonding applications.
0CON-200	Wax	454g/5 ingots	Temporary	Quartz Wax, melting point 66 - 69 °C. Particularly suited to electro-optic and optical materials bonding / mounting applications.
0CON-287	Mounting Resin	1kg	Permanent	Araldite Mounting Resin. Suitable for mounting a wide range of samples in Logitech Annular Saws. For use with Araldite Mounting Hardener
0CON-288	Mounting Hardener	0.4kg	Permanent	Araldite Mounting Hardener. For use with Araldite Mounting Resin.
0CON-324	Wax	454g	Temporary	Glycol Phthalate. Suitable for bonding semiconductor wafers where high shear strength is required. 71 °C softening point, becomes fluid at around 122 °C.

## **CLEANING FLUIDS & POWDERS**

0CON-178	Ecoclear	3.785 litres	Non-solvent cleaning fluid. Suitable for most sample and substrate cleaning applications including demounting ultra-thin semiconductor wafers.
0CON-177	Bonding Wax Cleaning Powder	5 litres	Non-solvent cleaning powder used as a heat diluted liquid in conjunction with OCON-193 for demounting wafers from substrates.

De	Thickness	Pack Size	Slide Size	Code
	2 mm	76 x 51 mm	100	0CON-053
	1.6 mm	30 x 45 mm	100	0CON-102
	1.2 - 1.5 mm	27 x 46 mm	100	0CON-145
	1.2 - 1.5 mm	35 x 40 mm	100	0CON-146
Н	1.2 - 1.5 mm	30 x 46 mm	100	0CON-148
	1.2 - 1.5 mm	26 x 46 mm	100	0CON-150
	1.2 - 1.5 mm	28 x 48 mm	100	0CON-151
	1.2 - 1.5 mm	76 x 26 mm	100	0CON-152
	1.2 - 1.5 mm	76 x 51 mm	100	0CON-153
	1.2 - 1.5 mm	76 x 110 mm	100	0CON-154
	1.2 - 1.5 mm	102 x 152 mm	100	0CON-155

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Comprised of high quality sheet glass to give maximum resistance to corrosion, the microscope slides also edges for greater safety and ease of handling.

cription

igh quality glass microscope slides, RI 1.54, finished edges. Highest quality materials are used, suitable for he most stringent of applications.

# **GLASS COVERSLIPS**



Logitech coverslips meet optical qualities such as flatness, planarity, during all stages of production, homogeneity, reflective index and the slides thickness conforms to dispersive power to the standard microscope coverslip the most exacting industry standards. thickness of 0.170mm.

Manufactured under close control

Logitech Glass Coverslips protect valuable thin sections and improve optical clarity for transmitted microscopy.

These slide coverslips are specially designed to give high resistance to fogging and microscope mould - even under extreme weather conditions.

Code Size Pack Description Size 100 0CON-156 24 x 44 mm High quality glass produced to exacting standards 0CON-157 26 x 46 mm 100 0CON-147 34 x 39 mm 100 0CON-159 74 x 49 mm 100 0CON-160 74 x 108 mm 100 0CON-161 75 x 25 mm 100

# **CARRIER DISCS & SUBSTRATES**



Logitech Glass Carrier Discs are used for the temporary support of both semiconductor and opto-electronic wafers during thinning and polishing operations. Higher density glass is more stable for 6 inch diameter applications and will not distort during the bonding process.

Code	Size	Pack Size	Description
0CON-338	105 mm	1	B270 glass substrate, unlapped
0CON-336	83 mm	1	B270 glass substrate, 6mm thic
0CON-337	105 mm	1	B270 glass substrate, pre-lappe
0CON-335	160 mm	1	B270 glass substrate, pre-lappe
0CON-164	83 mm	1	Float glass, flat lapped on one s
0CON-165	83 mm	1	Float glass, unlapped parallel.
0CON-166	83 mm	1	Float glass, pre-lapped parallel,
0CON-168	75 mm	1	Float glass, pre-lapped parallel,
0CON-170	105 mm	1	Float glass, unlapped parallel.
0CON-173	105 mm	1	Float glass, pre-lapped parallel,
0CON-179	112 mm	1	Float glass, pre-lapped parallel,
0CON-181	83 mm	1	Float glass, pre-lapped parallel, 2µm, finished Ra 300nm
0CON-182	105 mm	1	Float glass, pre-lapped parallel, 2µm, finished Ra 300nm
0CON-339	207 mm	1	B270 glass substrate, 3mm thic



oed.

hick, pre-lapped.

pped.

pped.

ne side only.

lel, maximum error 2µm, thickness 6mm, flatness 2µm

lel, maximum error 2µm, thickness 6mm, flatness 2µm

lel, maximum error 4µm, thickness 6mm, flatness 4µm lel, maximum error 4µm, thickness 6mm, flatness 4µm

lel, one face polished, maximum error 2µm, thickness 6mm, flatness

lel, one face polished, maximum error 2µm, thickness 6mm, flatness

hick, pre-lapped parallel.

# WAFER TEMPLATES



Logitech templates are manufactured to our high quality standards. Our templates are made from Fibreglass and are suitable for polishing Ceramic, BK7, Glass, Quartz, Silicate Lens and Silicon.

## PRODUCT DATA

Product Type:	Standard Wafer Templates
Material:	Fibreglass
Pocket Depth Range:	0.004 - 0.051 in
Backing Film	
Compressibility:	9.01%

Code	Pack Size	Description
0CON-494	10	50mm Static Wafer Template - One piece template for wafer O.D 50mm, wafer thickness - 300um, Template O.D 152mm
0CON-495	10	75mm Static Wafer Template - One piece template for wafer O.D 75mm, wafer thickness - 375um, Template O.D 152mm
0CON-496	10	100mm Static Wafer Template - One piece template for wafer O.D 100mm, wafer thickness - 525um, Template O.D 152mm
0CON-497	10	150mm Static Wafer Template - One piece template for wafer O.D 150mm, wafer thickness - 625um, Template O.D 228mm
0CON-498	10	200mm Static Wafer Template - One piece template for wafer O.D 200mm, wafer thickness - 725um, Template O.D 254m
0CON-499	10	PP9 Wafer Template Special Instruction - One piece template for PP9 Jig Special Instruction - SI number required
0CON-500	10	DP Template Special Instruction - One piece template for DP Special Instruction - SI number required

# **GENERAL SUPPLIES**



Lubricants, Optical pitches, Coolants, of the piston components in all Vacuum Oils and general supplies. Logitech Precision Jigs. Once the

Logitech Oils are designed to ensure the efficient and smooth functioning of Logitech equipment requiring a source of oil. These oils are produced to a very high standard, therefore safeguarding Logitech machines and components from excessive wear.

Logitech Ultragrade 19 Vacuum Oil is a high quality oil designed to ensure the smooth operation of Logitech machines incorporating a Speedivac or Vacuum Pump.

CC Lube is an effective lubricant for ensuring the smooth operation

## PRODUCT DATA

Product Type:CC Lube (semi-solid paste)Appearance:White to pale yellowBoiling Point:<316 °C (600.8 °F)</td>Flashpoint:105 °C (221 °F)Grading:FEPA 42-GB-1984Melting Point:260 °C (500 °F)Quantity supplied:1 x 20ml syringe

Code	Product	Pack Size	Description
0CON-223	Hydraulic Oil	1 litre	Hydraulic Oil (Type 22) for use
0CON-319	CC-Lube	20ml	CC-Lube (Jet Lube) oil for PP5
0CON-225	DB Oil	5 litres	DB Soluble Oil used as a coola
0CON-306	Vacuum Oil	1 litre	Ultragrade 19 Vacuum Oil, for
0CON-235	Dressing Stone	12	Dressing Stone for use with GT
0CON-241	Keystone Oil Blue Dye	1kg	Keystone Oil Blue Dye, for use
0CON-255	Diamond File	1	Diamond file for use with glass
0CON-285	Ceramic Tiles	5	Unglazed ceramic mounting til
0CON-289	M27 Soluble Oil	1 litre	Oil used as a coolant for the AF
0CON-316	Heating Oil	1 litre	Heating Oil for Wafer Substrate

of the piston components in all Logitech Precision Jigs. Once the jig has been dismantled in accordance with Logitech instructions, CC Lube is easily applied from its syringe.

Product Type:

Appearance:Pale yellowBoiling Point:380 °C (716Flashpoint:200 °C (392Specific Gravity:0.86Quantity supplied:1 litre pack

Ultragrade 19 Vacuum Oil Pale yellow to clear 380 °C (716 °F) 200 °C (392 °F) 0.86 I:1 litre pack

e with LD1 Lindear Drive Unit

, PP6, PP8 and PLJ2 piston lubrication.

ant for GTS1 Saw.

vacuum pumps supplied with LP50, VS2, IU30 & WSBU.

TS1 and CS30 saws.

when impregnating geological samples with synthetic resins.

s lapping plates and glass test blocks.

les for use with the APD1 & APD2 saws.

PD1 & APD2 saws.

te Bonding Units (WSBUs).



Logitech Ltd Erskine Ferry Road Old Kilpatrick Glasgow, G60 5EU United Kingdom

Tel:+44 (0) 1389 875 444Email:enquiries@logitech.uk.comWeb:logitech.uk.comstore.logitech.uk.com

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