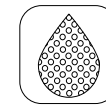
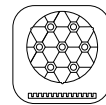
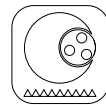
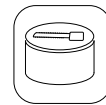
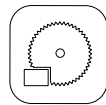


Aptex



2024




Your key to smarter sample preparation and analysis

Ordering and Pricing

Prices valid from 1st April 2024. This price list supersedes all previous price lists.

All prices exclude VAT.

Delivery is £18.50 per order up to 25Kg. Timed deliveries are £27.50

Orders containing items marked with  will attract a delivery charge of £37.50

There is no minimum or maximum order.

We accept payment by credit card.

Payment is due 30 days from shipment.

You can order by phone, post or through our webshop:



01564 206393



Aptex Ltd
Patrick Farm Barns, Unit 8
Meriden Road
Hampton-in-Arden
Solihull
B92 0LT



websales@aptexgroup.com



www.aptex.co.uk

Bank details

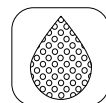
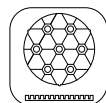
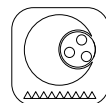
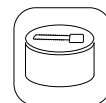
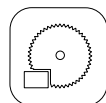
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Account: 11131895

VAT Registration: GB 925 0090 51


Company Registration: 6396076


Full terms and conditions are available on our website: aptex.co.uk/terms-and-conditions



Welcome to our 2024 consumables price list

We offer 24/48 hour delivery as standard from our UK warehouse for the majority of consumable items. Most morning orders are despatched the same day for delivery the following working day.

The few items not carried in stock are marked with this icon: . They can be ordered very easily and will be delivered within 2-4 weeks. If you cannot find what you're looking for just contact us:

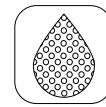
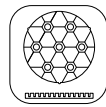
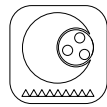
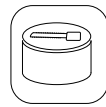
 01564 206393

 websales@aptexgroup.com

In addition to our consumables we offer a complete range of equipment needed for sample preparation, testing and analysis. If you'd like to discuss how to improve the speed and consistency of your sample preparation route and reduce your costs, we'd be delighted to help.

Contents

 Cut off wheels and accessories	4-5	 Self-lubricating diamond suspensions	16
 Cold mounting	6	 Diamond suspensions	17
 Hot mounting	7	Water free polishing media	18
 200mm (8in) grinding & polishing consumables	11	 Oxide suspensions & lubricants	19
 250mm (10in) grinding & polishing consumables	12	Demo kits by material	20
 300mm (12in) grinding & polishing consumables	13	 Portable polishing accessories	22
 350mm (14in) grinding & polishing consumables	14	Microscope accessories	24
		Hardness testing accessories	26



Cut-off Wheels

Precision Cut-off wheels

Actual size: 150 x 0.5 x 12.7mm

Aka-Cut 400 (50-400HV)	5pcs	11151110	£122
Aka-Cut 700 (150-700HV)	5pcs	11151140	£122
Aka-Cut 1000 (500-1000HV)	5pcs	11151170	£122

Diamond Cut-off wheels

Metal bonded (1pc)

125 x 0.5 x 12.7	AP101250	£275
150 x 0.5 x 12.7	AP101550	£340
175 x 0.6 x 12.7	AP101850	£390

Resin bonded (1pc)

200 x 1.5 x 32	AP102060	£340
250 x 1.5 x 32	AP102560	£475
300 x 1.5 x 32	AP103060	£525

Superabrasive Cut-off wheels

Actual size: 152 x 0.8 x 12.7mm

Aka-Cut 50	1pc	18153110	£357	Electroplated diamond. Low concentration
Aka-Cut 1500	1pc	16153150	£404	Resin bond CBN. High concentration
Aka-Cut 2000	1pc	17153110	£337	Metal bond diamond. Medium concentration
Aka-Cut 3000	1pc	17153150	£305	Resin bond diamond. High concentration

Cut-off wheels

Actual size

Aka-Cut 500HV (10pcs)

250mm(10in)

254 x 1.7 x 32mm

11251140

£153

300mm (12in)

305 x 2.2 x 32mm

11301140

£183

350mm (14in)

354 x 2.6 x 32mm

11351140

£212

400mm (16in)

406 x 3.2 x 32mm

11411140

£373

432mm (17in)

Note: Prices for 432mm are for boxes of 5pcs

Actual size

Aka-Cut Fe50 (10pcs)

11252150

£238

300 x 2.0 x 32mm

11302150

£314

350 x 2.5 x 32mm

11352150

£439

400 x 3.0 x 32mm

11402150

£588

432 x 3.0 x 32mm

11432150

£397

Aka-Cut Fe60 (10pcs)

11252160

£238

11302160

£314

11352160

£439

11402160

£588

11432160

£397

Aka-Cut NF10 (10pcs)

11252110

£238

11302110

£314

11352110

£439

11402110

£588

11432110

£397

Aka-Cut Ti20 (10pcs)

11252120

£238

11302120

£314

11352120

£439

11402120

£588

11432120

£397

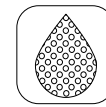
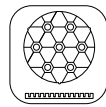
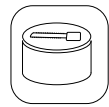
Cutting accessories

Aka-Cool - Concentrate for recirculation units

Aka-Cool	1l	19201015	£57	5l	19201017	£185
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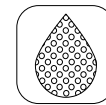
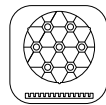
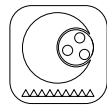
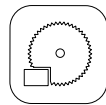
Aka-NoFoam - Anti-foaming concentrate for recirculation units

Aka-NoFoam	500ml	19501013	£67
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Recommended Cut-off Wheels

Hardness Range	50-250HV	100-350HV	250-500HV	350-700HV	500-1000HV	
Copper and Copper Alloys	Yes					
Ceramic Capacitors						Yes
Pure Titanium		Yes				
Aluminium Alloys	Yes					
Plasma Spray Coated Parts	Yes	Yes		Yes	Yes	
Coated Sintered Carbides						Yes
Stainless and Duplex Steel				Yes	Yes	
Titanium Alloys		Yes				
Carbon Composites						Yes
Materials of Hardness 50-150 HV	Yes					
Materials of Hardness 400-700 HV				Yes	Yes	
Hard Materials 700-2000 HV					Yes	Yes
Electronic Components	Yes					Yes
Cast Iron				Yes	Yes	
Zinc Coated Steel			Yes	Yes	Yes	
Materials of Hardness 150-400 HV			Yes			
Nitrided Steel				Yes	Yes	
Surface Hardened Steel			Yes			
Superalloys with Diffusion Coatings				Yes	Yes	
Superalloys			Yes	Yes		
Ceramic Thermal Spray Coated Parts						Yes
Cut-off Wheel	Aka-Cut NF10	Aka-Cut Ti20	Aka-Cut 500HV	Aka-Cut Fe50	Aka-Cut Fe60	Diamond




Cold Mounting

Mounting Epoxies and Resins

Aka-Resin Epoxy Liquid

Aka-Resin Liquid	1l	25101115	£65
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Aka-Cure Quick Hardener - 30min cure @ 80°

Aka-Cure Quick 	500ml	25101223	£64
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Aka-Cure Slow Hardener - 8-12hrs cure @ 20°C.

* Discounted price as Aka-Cure Slow-2 is discontinued.

Aka-Cure Slow 	500ml	25101213	£70
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Aka-Cure Slow 2*	500ml	25102213	£48
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Aka-Clear-2 Acrylic Resin System - 8min cure @ room temperature

Aka-Clear-2 Powder	1kg	25202311	£111
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Aka-Clear-2 Powder	5kg	25202313	£411
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Aka-Clear-2 Liquid 	1l	25202415	£104
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Moulds and Accessories

Polyethylene - 10 pcs

	25mm		30mm		40mm		50mm	
Aka-Mould	73112510	£33	73113010	£38	73114010	£46	73115010	£51

Silicone Rubber - 10 pcs

	25mm		1.25"		40mm		50mm	
Circular	S10A01	£75	S10A02	£80	S10A03	£87	S10A04	£95

Silicone Rubber - 10 pcs

	20 x 55 x 27mm		40 x 70 x 23mm		50 x 100 x 25mm	(L x W x D)
Rectangular	S10B00	£137	S10B01	£145	S10B02	£150

Mould Release Agent

Aka-NoStick Powder 50g	21901105	£92
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Aka-NoStick Liquid 250ml	25901201	£27
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Clips

Aka-Clip St. Steel	100pcs	73210860	£54
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Aka-Clip Trio	100pcs	AK8810	£30
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Cold Mounting Mixing Kit

200 cups, 200 sticks	73511075	£92
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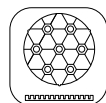
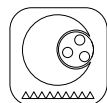
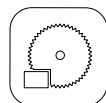
Our epoxies have perfect adhesion and minimal shrinkage. These cured resins have no environmental risk. This makes them ideal for both routine work and for embedding difficult specimens such as plasma sprayed coatings or porous surfaces.

We provide resin and hardener separately so you can order only what you need.

Aka-Resin Liquid is a low viscosity, transparent epoxy resin. One of the Aka-Cure hardeners is required in addition to the liquid.

Our acrylic resin consists of a powder and a liquid.

Aka-Clear-2 is a fast curing, transparent embedding system. It cures in 8mins and produces totally clear, bubble free mount without having to use a pressure pot. Mixing of the two components is not critical: if a slightly thinner mix is required a little extra liquid can be added without any adverse effect on the cured mount.



Hot Mounting

We offer a range of hot mounting compounds for use in hot embedding presses. These products are available in 1kg to 25kg packs.

- Aka-Resin Epoxy - a black, mineral-filled compound for excellent embedding and edge retention.
- Aka-Resin Acrylic - a crystal clear, transparent, thermoplastic resin.
- Aka-Resin Melamine - a white, mineral-filled compound offering excellent edge retention. We believe this to be even better than the Epoxy.
- Aka-Resin Phenolic - a black, wood-filled compound for economic embedding or backfilling.
- Aka-Resin Phenolic - 2 similar to Aka-Resin Phenolic but requiring a longer heating time.
- Aka-Resin Phenolic SEM - conductive for use in an SEM.

Epoxy - black, mineral-filled resin offering the best edge retention and embedding

Aka-Resin Epoxy	1kg	21101521	£97	7.5kg	21101524	£537
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Acrylic - clear thermoplastic resin

Aka-Resin Acrylic	1kg	21201001	£66	7.5kg	 21201004	£393
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Melamine - white, mineral-filled resin offering amazing edge retention

Aka-Resin Melamine	1kg	21301511	£71	7.5kg	21301514	£407	25kg	21301516	£995
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Phenolic - black, wood-filled, economy value resin

Aka-Resin Phenolic	2.5kg	21501122	£68	7.5kg	21501124	£147
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Black Bakelite	25kg	AP112007	£199
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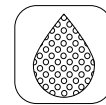
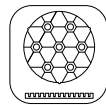
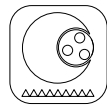
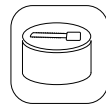
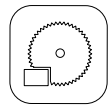
Phenolic - 2 - black, wood-filled, economy value resin

Aka-Resin Phenolic - 2	2.5kg	21502122	£55	7.5kg	21502124	£116
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Phenolic SEM - black, graphite-filled, conductive resin

SEM Conductive Phenolic	1kg	21501721	£75	7.5kg	 21501724	£418
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Metallurgy isn't ALL about consumables. We supply preparation equipment too! Cut-off machines, mounting presses, grinder/polishers....

Iqiege 60S



250mm Wet Abrasive Cut Off Machine - Manual
Twin Vices
Max Cutting Diameter - 60mm
60L Coolant Tank

TopTech ML-C



Hydraulic mounting press
25 - 50mm samples

Mopao 2



200 - 250mm wheel diameter options
Variable Speed 0 - 1000/1400 rpm

Iqiege 6100S



300 - 350mm Wet Abrasive Cut Off Machine - Auto/
Manual
Twin Vices
Max Cutting Diameter - 100mm
60L Coolant Tank

Mopao 4

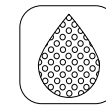
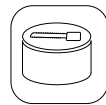
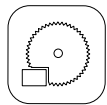


200/250/300mm wheel diameter options
Variable Speed 0 - 1000 rpm

TopTech P25G



200-250mm semi-automatic grinder polisher
Single sample or multiple sample holders
A doser is available



Grinding & Polishing

Aka-Piatto

Aka-Piatto are a series of polymer-coated steel, diamond grinding discs suitable for magnetic systems. They are colour coded in grit sizes P80-P4000.

They have a number of advantages over grinding papers. They can:

- Replace several grinding stages
- Replace 100-200 pieces of grinding paper
- Create fully plane samples avoiding half-moon effects
- Last longer due to the wear compensation design
- Maintain absolute edge retention due to the diamond abrasive being bonded to the disc
- Plane and fine-grind all materials harder than 150HV, although for materials above 400HV we recommend the use of a long life dressing stick (AP9885).

Aka-Piatto+

Aka-Piatto+ are a series of Piatto discs with double the diamond concentration used on Aka-Piatto. They have an improved lifetime and produce a finer surface finish on brittle samples such as cermets and ceramics due to the lower specific pressure.

They share all the other features of Aka-Piatto such as colour-coding, wear compensated design and the 3 small tabs for easy exchange. Aka-Piatto+ discs need to be dressed with a dressing stick before first use and, depending on the material, once in a while during use.

We recommend the dressing stick AP9885.

Aka-Allegran & Aka-Largan

Aka-Allegran & Aka-Largan are rigid fine grinding/polishing discs. Built in abrasive is released when diamond suspension or spray is added during preparation. This unique abrasive system results in high removal rates, perfect planeness and a very long life. Discs are delivered ready to use and require no maintenance.

Aka-Largan 9 is used for fine grinding of soft materials in the range 50HV to 400HV. Diamond suspension or spray in grain sizes 15 to 3µm is added during preparation.

Aka-Allegran 9 is used with 15 to 3µm diamond for fine grinding materials harder than 450HV. It will replace grinding steps from P320-P1200 in a single step.

Aka-Allegran 6 is recommended when an optimal balance between material removal and fine surface finish is required. It is the most universal disc in the range. It provides fast fine grinding of most materials with a hardness above 150HV using 9 to 3µm diamonds. It will replace the traditional grinding steps from P320-P1200 with one single step.

Aka-Allegran 3 can also be used with 15 to 3µm diamond for fine grinding materials with a hardness above 150HV. It also replaces P320-P1200 in a single step. Used with 6µm diamond it will produce perfectly flat samples ready for final polishing with 1µm.

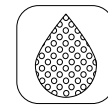
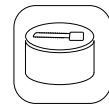
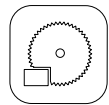
Aka-Allegran 1 is used for polishing material with a hardness above 150HV. It can be used with diamonds as small as 0.1µm resulting in outstanding planeness.

Rhaco Grit Abrasive Papers

Our brand of plain abrasive grit papers, the Rhaco grit, are available in all standard sizes. Also available to special order in 9". Please contact us for prices.

Rhaco grit papers have several advantages over traditional SiC papers:

- Lasting 2-3 times longer than typical P80, P120, P180, P220, P320, P500 and P800 papers
- Providing better edge retention than usual P1000-P1200 papers
- Replacing self-adhesive paper when used with an Aka-Rhaco (see pages 11-13)



Polishing Cloths

Magnetic Polishing Cloths

Our range of magnetic polishing cloths contain a thick polymer barrier that keeps lubricant and abrasive on the surface. This makes them more effective at removing material. The magnetic backing ensures easy placement and removal.

Magnetic Adaption

We have magnetic adaption to suit every situation.

Aka-Rhaco is a stainless steel disc with a soft adhesive polymer coating on one side. This creates a low tack finish which means that additional adhesive is not required. It lasts for over 200 applications and is perfect for grinding and polishing.

Use with:

- Rhaco grit instead of buying expensive PSA backed papers
- Aka-cloths without removing their liner. Simply lay the cloth on the Aka-Rhaco and you have a magnetic cloth. When the cloth is worn out simply replace it with another.

Aka-Rhaco Flex uses a soft magnetic polymer material in place of the stainless steel disc. Due to its lower magnetism it is only recommended for polishing or manual grinding.

Aka-Rhaco-PSA is a self adhesive version which is adhered directly onto a platen and will remain there until worn out.

A Few Extras...

Disc Cabinet

Cabinet for the storage of up to 16 steel preparation discs with a diameter of 200 - 300 mm

Disc Cabinet	1pc	79000002	£852
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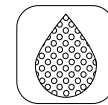
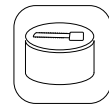
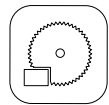


Protection Caps

Used to protect sample surfaces from scratches after preparation

		30mm ø			40mm ø			50mm ø
Protection Cap	100pcs	78313060	£59	78314060	£64	78315060	£73	





250mm (10") Grinding & Polishing Consumables

Aka-Piatto (1pc)			
80	Red-Brown	31212510	£107
120	Yellow-Ochre	31212520	£90
220	Green	31212530	£81
600	Blue	31212545	£81
1200	Black	31212560	£81
2400	Pink	31212575	£105
4000	White	31212590	£105

Aka-Piatto+ (1pc)			
80	Red-Brown	31412510	£145
120	Yellow-Ochre	31412520	£123
220	Green	31412530	£108
600	Blue	31412545	£108
1200	Black	31412560	£108

Aka-Allegran (2pcs)			
9	Grey	33412522	£140
6	Red	33412532	£127
3	Blue	33412542	£127
1	Buff	33412552	£127

Aka-Largan (2pcs)			
9	Grey	33212522	£127

Rhaco-Grit Plain Paper			
P80	50pcs	35325107	£50
P120	50pcs	35325207	£48
P180	100pcs	35325258	£77
P220	100pcs	35325308	£72
P320	100pcs	35325358	£72
P500	100pcs	35325408	£72
P800	100pcs	35325508	£72
P1000	100pcs	35325558	£72
P1200	100pcs	35325608	£72
P2400	100pcs	35225758	£280
P4000	100pcs	35225908	£280

Magnetic Polishing Cloths (5 pcs)

Mag-Plaran	42251013	£111	Fine grinding 15-6µm
Mag-Paran-S	42252013	£133	
Mag-Silk	42254013	£141	Polishing 6-1µm
Mag-Daran	42252513	£111	
Mag-Ramda	42253013	£87	Polishing 3µm
Mag-Moran	42255013	£132	
Mag-Moran-U	42255113	£97	
Mag-Plural	42256013	£111	
Mag-Napal	42257013	£111	Fine polishing 1µm or less
Mag-Chemal	42259013	£133	

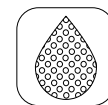
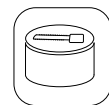
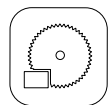
Magnetic Adaption

Aka-Rhaco	75151252	£113
Aka-Rhaco Flex	75152252	£93
Aka-Rhaco PSA	75153252	£93
Aka-Magnet	75110251	£49

Aka-Rhaco, Aka-Rhaco Flex and Aka-Rhaco PSA sold in packs of 2. Aka-Magnet sold in packs of 1

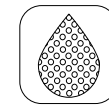
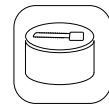
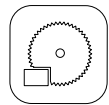
Hermes SiC Paper

P2500	100pcs	35825808	£126
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300mm (12") Grinding & Polishing Consumables

Aka-Piatto (1pc)				Aka-Piatto+ (1pc)				Aka-Allegran (2pcs)				Rhaco-Grit Plain Paper			
80	Red-Brown	31213010	£162	80	Red-Brown	31413010	£217	9	Grey	33413022	£153	P80	50pcs	35330107	£71
120	Yellow-Ochre	31213020	£130	120	Yellow-Ochre	31413020	£174	6	Red	33413032	£141	P120	50pcs	35330207	£63
220	Green	31213030	£113	220	Green	31413030	£151	3	Blue	33413042	£141	P180	100pcs	35330258	£106
600	Blue	31213045	£113	600	Blue	31413045	£151	1	Buff	33413052	£141	P220	100pcs	35330308	£100
1200	Black	31213060	£113	1200	Black	31413060	£151					P320	100pcs	35330358	£100
2400	Pink	31213075	£147									P500	100pcs	35330408	£100
4000	White	31213090	£147									P800	100pcs	35330508	£100
								Aka-Largan (2pcs)							
								9	Grey	33213022	£141	P1000	100pcs	35330558	£100
Magnetic Polishing Cloths (5 pcs)												Hermes SiC Paper			
Mag-Plaran	42301013	£141	Fine grinding 15-6µm									P1200	100pcs	35330608	£100
Mag-Paran-S	42302013	£181										P2400	100pcs	35230758	£396
Mag-Silk	42304013	£174	Polishing 6-1µm									P4000	100pcs	35230908	£396
Mag-Daran	42302513	£141													
Mag-Ramda	42303013	£91										Hermes SiC Paper			
Mag-Moran	42305013	£170	Polishing 3µm									P2500	100pcs	35830808	£173
Mag-Moran-U	42305113	£123						Magnetic Adaption							
Mag-Plural	42306013	£141						Aka-Rhaco	75151302	£136	Aka-Rhaco, Aka-Rhaco Flex and Aka-Rhaco PSA sold in packs of 2.				
Mag-Napal	42307013	£141	Fine polishing 1µm or less					Aka-Rhaco Flex	75152302	£108	Aka-Magnet sold in packs of 1				
Mag-Chemal	42309013	£181						Aka-Rhaco PSA	75153302	£108					
								Aka-Magnet	75110301	£54					



350mm (14") Grinding & Polishing Consumables

Aka-Piatto (1pc)

80	Red-Brown	31213510	£224
120	Yellow-Ochre	31213520	£182
220	Green	31213530	£157
600	Blue	31213545	£157
1200	Black	31213560	£157

Aka-Piatto+ (1pc)

Not available in 350mm ø

Aka-Allegran (2pcs)

9	Grey	33413522	£220
6	Red	33413532	£203
3	Blue	33413542	£203
1	Buff	33413552	£203

Rhaco-Grit Plain Paper

Not available in 350mm ø

Magnetic Polishing Cloths (5 pcs)

Mag-Plaran	42201013	£210	Fine grinding 15-6µm
Mag-Paran-S	42202013	£275	
Mag-Silk	42204013	£243	Polishing 6-1µm
Mag-Daran	42202513	£210	
Mag-Ramda	42203013	£153	Polishing 3µm
Mag-Moran	42205013	£254	
Mag-Moran-U	42205113	£178	
Mag-Plural	42206013	£210	
Mag-Napal	42207013	£210	Fine polishing 1µm or less
Mag-Chemal	42209013	£275	

Magnetic Adaption

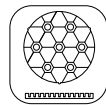
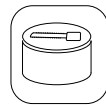
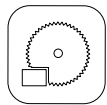
Aka-Rhaco	75151352	£159
Aka-Rhaco Flex	75152352	£129
Aka-Rhaco PSA	75153352	£129
Aka-Magnet	75110351	£70

Aka-Rhaco, Aka-Rhaco Flex and Aka-Rhaco PSA sold in packs of 2. Aka-Magnet sold in packs of 1

Grinding Stones 356mm 150 Grit

Our stone grinding discs are ideal for general metal grinding and fit both Struers™ and ATM© grinding machines with stone adapters.

Al ₂ O ₃ grinding stone	(1pc)	39136240	£475
SiC grinding stone	(1pc)	39136210	£586
Al ₂ O ₃ grinding stone with base plate	(1pc)	39235240	£639



Diamond Suspensions, Oxides and Lubricants

DiaUltra and **DiaUltra-Poly** are advanced diamond suspensions using high-quality diamonds and a superior lubrication system. You get the highest material removal, shortest preparation times and best surface quality possible. These diamond suspensions can reduce your preparation time by up to 40%, which means that you can save cost on consumables as well. **DiaUltra** and **DiaUltra-Poly** are recommended for all materials, as long as they are not water sensitive. Only having to dose one liquid - instead of two - makes the preparation easy, trouble-free and reproducible.

DiaMaxx-Poly, **DiaMaxx-Mono**, **DiaDoublo-Poly** and **DiaDoublo-Mono** are one dose liquid preparations containing both diamonds and a lubricant (Aka-Lube Clear plus) in a permanently stable form that offers excellent and consistent results. Unlike other two-in-one products on the market, they are perfectly compatible with any polishing or fine-grinding surface. The **DiaMaxx** products contain 20ct/l of diamonds while the **DiaDoubls** contain 10ct/l. They contain no oil and are consequently very easy to clean.

Aka-Poly, **Aka-Mono**, **Aka-Poly Plus** and **Aka-Mono Plus** contain no lubricants, allowing you to choose the most suitable one for your project. The suspensions have been developed to ensure that the diamond stays evenly distributed throughout the products. This ensures an outstanding, scratch-free finish is achieved every time. They have been designed for use with semi-automatic systems and are compatible with all manufacturers' dosers. **Aka-Poly** and **Aka-Mono** contain 20ct/l of diamonds (up to 50% greater than comparable products on the market) while the Plus products contain 40ct/l leading to exceptional removal rates and cost/time savings.

Our range of glycol based **Water Free Diamond Suspensions** contain less than 0.1% water and are ideal for water sensitive samples. They are all oil-free to ensure easy cleaning and are non-hazardous and non-flammable. **Aka-Poly Water-free** and **DiaDoublo Water-free** are made from non-toxic and non-flammable glycols. **Aka-Stick** and **Aka-Paste** are both water-free and are ideal for manual polishing and for quick charging of new polishing cloths. Both have high diamond concentrations to ensure high removal rates.

Our range of fumed and colloidal **Silica Suspensions** are designed to suit a variety of materials and are available in grain sizes from 0.05-0.2µm. They polish through a combined chemical and mechanical reaction. The chemical etches the surface which is then removed by the soft silica leaving a deformation-free surface. They are designed to prevent the crystal formation common in competing products. Our water-free suspensions are unique on the market.

The **Alumina Oxides** are virtually pH neutral for final polishing.

Lubricants

Our low viscosity lubricants provide an unrivalled combination of removal rates and smooth finish. The low evaporation rates and very stable preparation ensure that they offer consistent lubrication. This reduces the heat produced in the grinding and polishing process.

Aka-Lube Green - a very thin film suitable for high removal in initial preparation stages.

Aka-Lube Red - a thick film giving the best finish for final polishing.

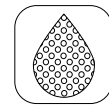
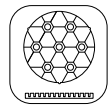
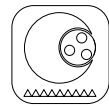
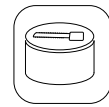
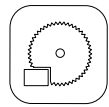
Aka-Lube Yellow - a general purpose lubricant, sitting between Red & Green.

Aka-Lube Clear Plus - a polymer based lubricant with an excellent removal rate. It is ideal for use with Aka-Poly and Aka-Mono (and their Plus ranges) or any suspension that does not already contain a lubricant.

Aka-Lube Clear - a water-free, non-hazardous and non-flammable version of Aka-Lube Clear Plus.








Aka-Lube Blue - water free, very thin lubricant for high removal rates.

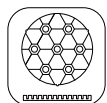
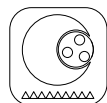
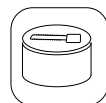
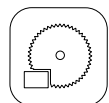
Aka-Lube Blue Concentrate - a traditional water-free ethanol based lubricant. It requires the addition of ethanol in a ratio of 10:1 to create a thin film for high removal rates.







Self-Lubricating Diamond Suspensions

NEW!

		DiaUltra-Poly		DiaUltra		DiaMaxx-Poly		DiaMaxx-Mono		DiaDoublo-Poly		DiaDoublo-Mono	
15µm	500ml	43628013	£109	43618013	£89	43128013	£109	43118013	£78	43328013	£78	43318013	£44
	2.5l							43118016	£227	43328016	£356	43318016	£165
	5l 	43628017	£879	43618017	£496	43128017	£879	43118017	£427	43328017	£633	43318017	£305
9µm	500ml	43627013	£109	43617013	£89	43127013	£109	43117013	£78	43327013	£78	43317013	£44
	2.5l							43117016	£227	43327016	£356	43317016	£165
	5l 	43627017	£879	43617017	£496	43127017	£879	43117017	£427	43327017	£633	43317017	£305
6µm	500ml	43626013	£109	43616013	£89	43126013	£109	43116013	£78	43326013	£78	43316013	£44
	2.5l							43116016	£227	43326016	£356	43316016	£165
	5l 	43626017	£879	43616017	£496	43126017	£879	43116017	£427	43326017	£633	43316017	£305
3µm	500ml	43625013	£109	43615013	£89	43125013	£109	43115013	£78	43325013	£78	43315013	£44
	2.5l							43115016	£227	43325016	£356	43315016	£165
	5l 	43625017	£879	43615017	£496	43125017	£879	43115017	£427	43325017	£633	43315017	£305
1µm	500ml	43624013	£109	43614013	£89	43124013	£109	43114013	£78	43324013	£78	43314013	£44
	2.5l							43114016	£227	43324016	£356	43314016	£165
	5l 	43624017	£879	43614017	£496	43124013	£879	43114013	£427	43324017	£633	43314017	£305
0.25µm	500ml	43622513	£109	43612513	£89	43122513	£109			43322513	£78		
	2.5l 									43322516	£356		
	5l 	43622517	£879	43612517	£496	43122517	£879			43322517	£633		



Diamond Suspensions

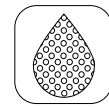
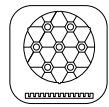
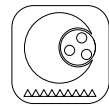
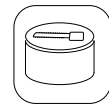
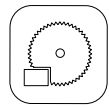
		Aka-Poly		Aka-Mono		Aka-Poly+		Aka-Mono+	
15µm	500ml	44128013	£143	44118013	£87	44148013	£201	44138013	£116
	1l	44128015	£270	44118015	£153	44148015	£374	44138015	£212
9µm	500ml	44127013	£143	44117013	£87	44147013	£201	44137013	£116
	1l	44127015	£270	44117015	£153	44147015	£374	44137015	£212
6µm	500ml	44126013	£143	44116013	£87	44146013	£201	44136013	£116
	1l	44126015	£270	44116015	£153	44146015	£374	44136015	£212
3µm	500ml	44125013	£143	44115013	£87	44145013	£201	44135013	£116
	1l	44125015	£270	44115015	£153	44145015	£374	44135015	£212
1µm	500ml	44124013	£143	44114013	£87	44144013	£201	44134013	£116
	1l	44124015 	£270	44114015	£153	44144015	£374	44134015	£212
0.5µm	500ml	44123013	£143						
	1l	44123015 	£270						
0.25µm	500ml	44122513 	£143			44142513	£201		
	1l	44122515 	£270						

Most of our diamond preparations can be supplied with either poly-crystalline or mono-crystalline diamonds. But which to choose?

Poly-crystalline diamonds are more resistant to fracture under load and consequently produce a more consistent polish. They also last longer since when they do fracture they produce new cutting edges. Mono-crystalline diamonds are, however, cheaper.

Don't forget to factor in the lubricant. The lubricant also has a massive effect on the quality and speed of preparation.

Just email: websales@aptexgroup.com for more information.









Water-free Polishing Media

Aka-Stick Poly

9µm	20ml	46027012	£101
6µm	20ml	46026012	£101
3µm	20ml	46025012	£101
1µm	20ml	46024012	£101
0.25µm	20ml	46022512	£101

Other diamond sizes available. Please contact us.

Aka-Paste Poly

15µm	10ml	47028011	 £101
9µm	10ml	47027011	 £101
6µm	10ml	47026011	 £101
3µm	10ml	47025011	 £101
1µm	10ml	47024011	 £101
0.25µm	10ml	47022511	 £101






Aka-Poly Water Free

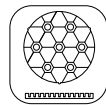
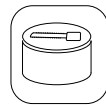
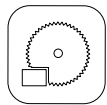
15µm	500ml	44168013	£144
9µm	500ml	44167013	£144
6µm	500ml	44166013	£144
3µm	500ml	44165013	£144
1µm	500ml	44164013	£144
0.25µm	500ml	44162513	£144

Aka-Stick Mono

9µm	20ml	46017012	£58
6µm	20ml	46016012	£58
3µm	20ml	46015012	£58
1µm	20ml	46014012	£58

Aka-Paste Mono

15µm	10ml	47018011	 £58
9µm	10ml	47017011	 £58
6µm	10ml	47016011	 £58
3µm	10ml	47015011	 £58
1µm	10ml	47014011	 £58



Lubricants and Oxides

Lubricants

Aka-Lube Green

1l	49301015	£27
5l	49301017	£94

Aka-Lube Yellow

1l	49401015	£27
5l	49401017	£94

Aka-Lube Red

1l	49501015	£27
5l	49501017	£94


Aka-Lube Clear Plus

1l	49201015	£32
5l	49201017	£108

Aka-Lube Clear Water Free

1l	49101015	£37
5l	49101017	£126

Aka-Lube Blue

1l	49601015	 £33
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Aka-Lube Blue Concentrate

500ml	49605013	£30
5l	49605017	£258

Oxides for final polishing

Alkaline pH 9-10

1l	Colloidal silica suspension 50nm	48161015	£55
5l	Colloidal silica suspension 50nm	48161017	£209
1l	Fumed silica suspension 0.2µm	48123015	£73
5l	Fumed silica suspension 0.2µm	48123017	£290

Water-free For water sensitive materials

1l	Fumed silica suspension 0.2µm WF	48133015	£112
5l	Fumed silica suspension 0.2µm WF	48133017	£424

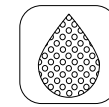
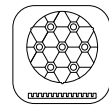
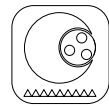
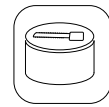
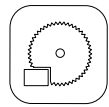
Alumina pH 7-8 neutral for final polishing

1l	Alumina suspension 50 nm neutral	48211015	£81
5l	Alumina suspension 50 nm neutral	48211017	£348

Fumed or colloidal silica?

Fumed silica is made in a flame oxidizing process which produces crystals about 40nm in size. However, these then clump forming aggregates with a grain size of between 0.12 and 0.2µm. (0.2µm equivalent to Struers™ OP-S). Colloidal silica is made in a wet process that is very uniform and does not lead to clumping. Final particle size is about 0.05µm.

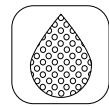
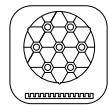
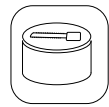
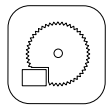
Some manufacturers quote a grain size of 0.04µm for fumed silica, despite the fact that the aggregates have a mean size of 0.2µm.



Sample Preparation Kits for Specific Materials - Demo Kits

We have a wide range of demo kits ideal for improving your sample polishing process. The kits are available in 200mm, 250mm and 300mm sizes and include everything that you need to produce 25-50 samples for your specific preparation route: a step-by-step guide with images showing how each stage should look, grinding/polishing discs, papers and polishing cloths, and 100ml sizes of self lubricating diamond suspensions. The kits are an inexpensive way to test out a new route, typically saving you £60-£190 over buying the items separately. These kits are not kept in stock but are made to order.

		200mm ø £131	250mm ø £152	300mm ø £213
Copper and Copper Alloys		61200110	61250110	61300110
Ceramic Capacitors		61200210	61250210	61300210
Pure Titanium		61200310	61250310	61300310
Aluminium Alloys	NEW!	61200410	61250410	61300410
Metallic/Composite Spray Coated Parts		61200510	61250510	61300510
Coated Sintered Carbides		61200610	61250610	61300610
Stainless & Duplex Steels		61200710	61250710	61300710
Titanium Alloys		61200810	61250810	61300810
Carbon Composites		61200910	61250910	61300910
Materials of Hardness 50-150 HV		61201010	61251010	61301010
Materials of Hardness 400-700 HV		61201110	61251110	61301110
Materials of Hardness 700-2000 HV		61201210	61251210	61301210
Electronic Components		61201310	61251310	61301310
Cast Iron		61201410	61251410	61301410
Zinc Coated Steel		61201510	61251510	61301510
Materials of Hardness 150-400 HV		61201610	61251610	61301610
Nitrided Steel		61201710	61251710	61301710
Surface Hardened Steel		61201810	61251810	61301810
Superalloys with Diffusion Coatings		61201910	61251910	61301910
Superalloys	NEW!	61202010	61252010	61302010
Ceramic Thermal Spray Coated Parts		61202110	61252110	61302110



Sample Preparation Kits for Specific Materials - Demo Kits

Example: Our Brass preparation kit contains the items shown below in quantities sufficient to produce between 25 and 50 samples:



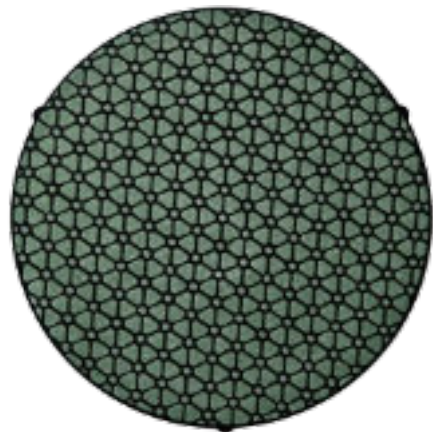
Rhaco Grit P320



Daran and DiaUltra 3µm



Chemal and 0.2µm Fumed Silica

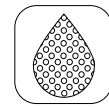
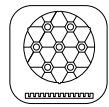
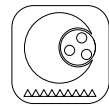
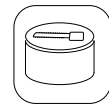
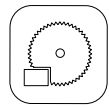


Allegran 9 and DiaUltra 9µm



Napal and DiaUltra 1µm





Portable Polishing Consumables / General Accessories

Our portable polishing consumables are compatible with all major brands of portable grinder/polishers.

Adhesive backed grinding discs - 32mm 100 pcs

P60	AP13 03 00	£25
P120	AP13 03 03	£25
P240	AP13 03 07	£25
P400	AP13 03 10	£25
P600	AP13 03 12	£25
P1200	AP13 03 15	£25

Self-adhesive polishing cloths - 32mm 25 pcs

Aka-Daran	41032516	£36
Aka-Moran	41035016	£39
Aka-Plural	41036016	£36
Aka-Ramda	41033016	£36
Aka-Napal	41037016	£36
Aka-Silk	41034016	£53
Aka-Moran-U	41035116	£34
Aka-Rhaco	75153037	£51

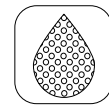
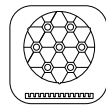
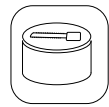
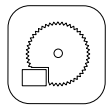
Bottles and Triggers

Trigger spray for 250-1000ml bottles	78200005	5pcs	£23
Trigger spray bottle 250ml	78101103	3pcs	£23
Trigger spray bottle 500ml	78101303	3pcs	£23

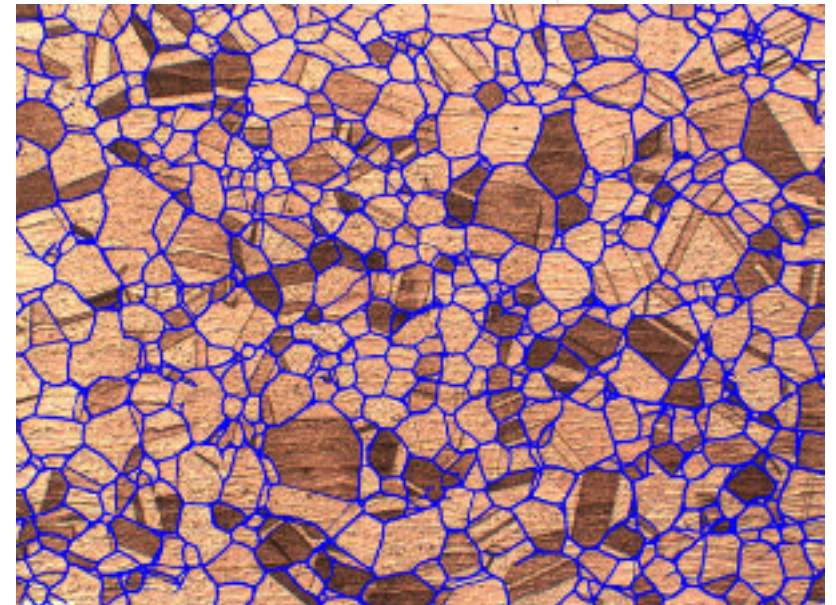
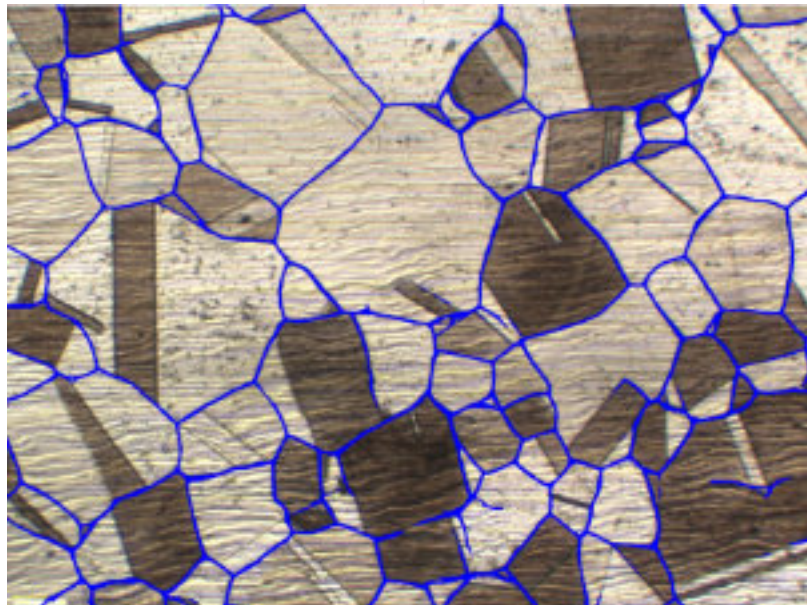
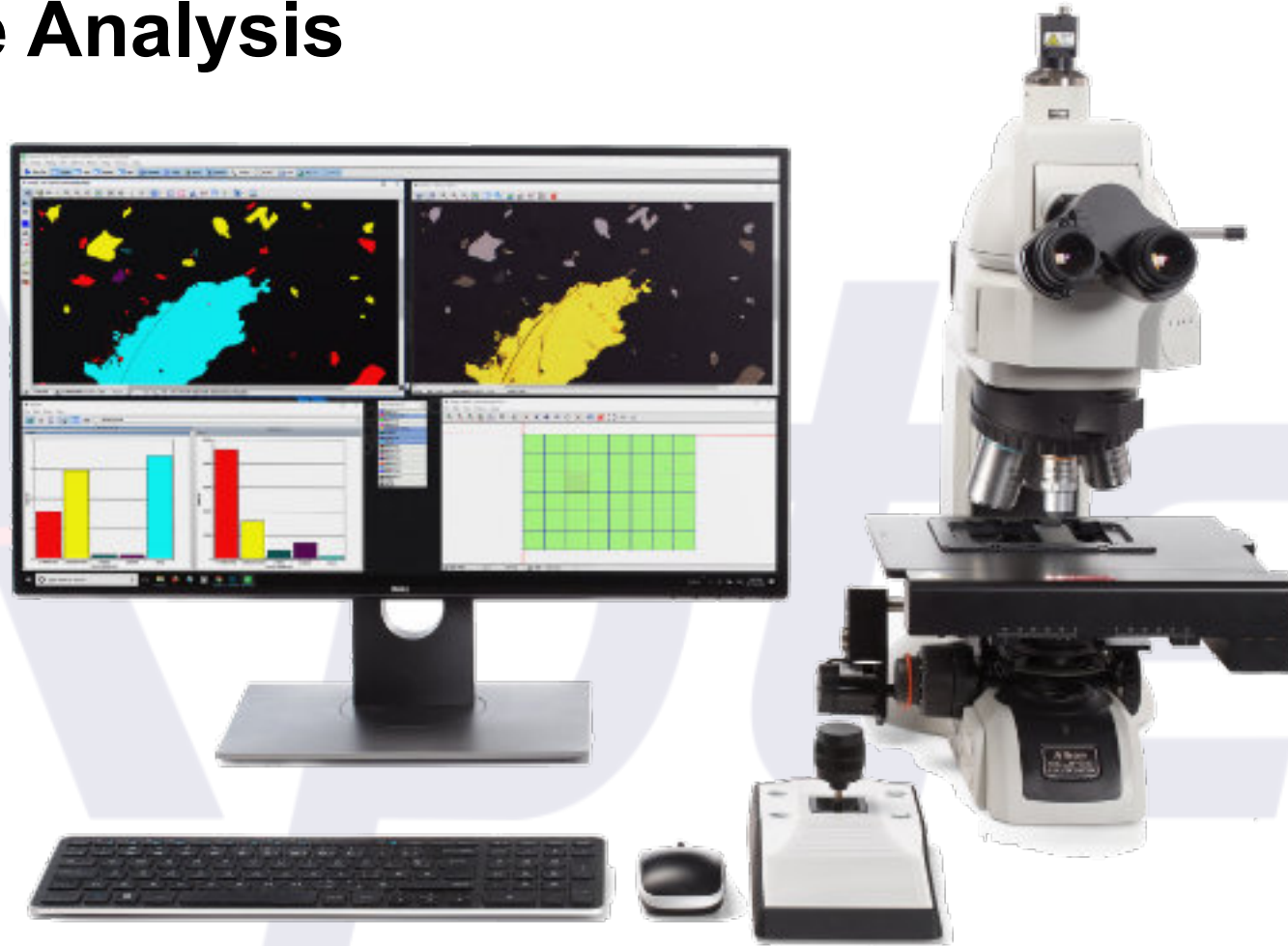
Portable grinder / polisher spares

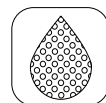
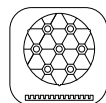
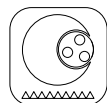
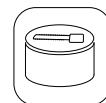
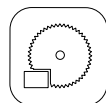
Flapper abrasive wheel P240 60x30x70	APFLAP01	25pcs	£125
Controller (110v or 220v)	NE249	1pc	£620
Motor and cord	ENK-250T	1pcs	£750
Motor and cord	ENK-410S	1pcs	£680
Handpiece	BMH-300	1pcs	£330
Handpiece	IH-300	1pcs	£330
Handpiece 45° angle	KC-300	1pcs	£425
Handpiece 90° angle	IC-300	1pcs	£425
Reduction gearbox	RG-01	1pcs	£425
Extension joint	CN-01	1pcs	£320
Foot control	FC-64	1pcs	£120
Rubber 30mm disc holder/3mm shank	PT-030	5pcs	£40
Dressing stick (for Aka-Piattos & Aka-Allegrans >400HV)			
Long life dressing stick 25x25x150mm	AP9885	1pc	£11

Our small range of accessories help increase reproducibility and improve consistency. If you don't see what you're looking for, please contact us.



Metallurgy isn't ALL about consumables.
We supply analytical equipment too!
Cameras/Image Analysis





Microscope Accessories

Stage Micrometers

Clemex micrometer, NIST traceable	CL14322	£895
Stage micrometer 1mm into 100 divisions, glass	MTMA285	£125
Stage micrometer 1mm into 100 divisions, metal for reflected light	MTMA292	£265
Glass stage micrometer, 1mm into 100 divisions	TS-M1	£35
Stainless steel stage micrometer, 10mm in 0.1mm divisions with UKAS cert.	PS1R	£420
75x75mm glass stage micrometer 50mm in 0.1mm divisions with UKAS cert.	PS50	£520
Stainless steel stage micrometer, 1mm in 0.01mm divisions with UKAS cert.	PS78	£390

Many other stage micrometers are available. Please contact us for details and prices.

Eyepiece graticules (other sizes available - please contact us)

Olympus - eyepiece graticule 24mm diameter U-OCM 10/100	K10017220	£45
Olympus - eyepiece graticule 24mm diameter 35072 U-OCMC 10/100	K10017241	£49
Eyepiece micrometer, 10mm into 100 divisions, 19mm diameter	MTMA280	£55
Eyepiece micrometer, 10mm into 100 divisions, 25mm diameter	MTMA506	£65

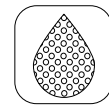
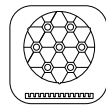
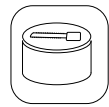
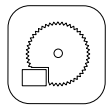
Microscope Bulbs 1 pc

Meiji 6V 10W halogen for PBH stand	MTGE787	£20
6V 30W bulb	MTMA326	£25
Meiji 6V 1.2A bulb for PB incident lamp	MTMA560	£17
Olympus HL-EKE 21V/150W bulb	K10017116	£25

Olympus 6V 30W halogen bulb	OLE0430150	£11
Olympus 12V 100W bulb	OL035359	£15
Olympus 15V 150W halogen bulb (KL1500)	OLE0433066	£15
Leica 12V 100W bulb	LEBULB	£15

Odds & Ends...

Hand Press	K10017302	£195
Metal Slide Plates (5pcs)	OL032401	£35
Plasticine	APPLASTICINE	£10
Premium Selvyt Cloth		
250mm x 250mm (10pcs)	APSELVYT	£55
Adhesive Spray	APSPRAY	£10
5 megapixel camera		
Colour camera & software	APCAM5C	£395



Metallurgy isn't ALL about consumables. We supply examination equipment too! Nikon Microscopes

SMZ1270i



MA100



LV150N



MA200



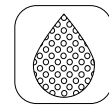
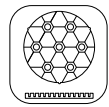
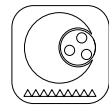
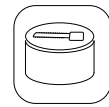
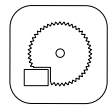
Microscope Servicing

We are pleased to offer microscope servicing.

£245 for the first microscope and £50 per subsequent instrument at the same location and on the same order.

Minor adjustments and repairs will be performed as part of the service.

For more major repairs please contact us for a quotation.



Hardness Testing Accessories

Reference hardness blocks

Vickers test blocks with UKAS certificates (specify hardness followed by load)

Nominal hardness block values: 40, 70, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950

Vickers test block (HV2, HV3, HV5, HV10, HV20, HV30, HV50 & HV100)	INBLOCKV		£495
Micro Vickers test block (HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5 & HV1)	INBLOCKMV		£660
Knoop test block (HK0.01, HK0.025, HK0.05, HK0.1, HK0.2, HK0.3, HK0.5 & HK1)	INBLOCKKP		£660

Rockwell and Superficial Rockwell test blocks with UKAS certificates (specify hardness scale and hardness value)

HRC Nominal Values are 20 25 30 35 40 45 50 55 60 63 65 67

HRB Nominal values are 20 30 40 50 60 70 75 80 85 90 95 100

Please specify Rockwell hardness scale and hardness value.

Blocks can be supplied with a grid pattern for an additional £40.

Brinell test blocks with UKAS certificates (specify hardness scale and hardness value)

Brinell HRW 10/3000 Nominal Values are 100 150 170 200 250 300 350 400 450 500 550 600 650

Low load <187.5kgf (64mm ø x 15mm)	INBLOCKBL		£370
High load >250kgf (150 x 125 x 16mm)	INBLOCKBH		£495

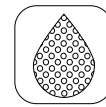
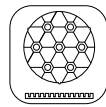
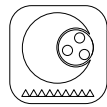
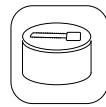
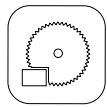
Blocks can be supplied with a grid pattern for an additional £40.

Standard Indenters with UKAS certificates

Micro Vickers Indenter	INDENTV01		£630	Rockwell B Indenter	INDENTR01		£270
Vickers Indenter	INDENTV02		£450	Rockwell C Indenter	INDENTR02		£350
Knoop Indenter	INDENTV03		£630	Brinell Indenter	INDENTB01		£300

Note:

When ordering an indenter please specify your machine's manufacturer and model number. Other indenters are available. Please contact us.



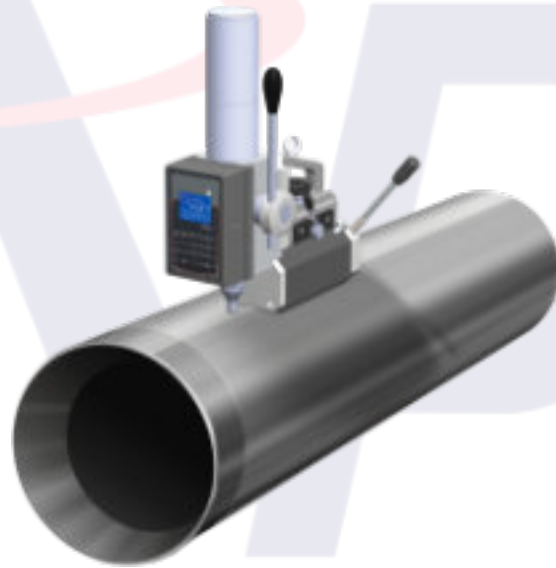
Metallurgy isn't ALL about consumables. We supply equipment too! Hardness Testers

206 RSD



Great machine for quick production results.
Multiple Rockwell Scales.
One simple movement of lever means results appear on display.
Clamping tool makes everything easy.

RSD MAGNETIC



Portable Rockwell Solution.
Multiple Clamping Options.
Conforms to many standards.

Wiki JS 2000



Fully Automatic Micro Macro Vickers.
Loads 1g - 100kg.
Great for Case Depth Profiles.
Easy to use Software.

LD3000 Series



Test loads 3 - 3000kgf.
One button measurements.
Accurate Loading.
Auto Measuring or Measuring Gun.

Many other models available. Please contact us.

