

# Consumables for etching and analyzing





## **Aprep** Etching



QATM offers a wide range of etchants for contrasting as well as for qualitative and quantitative analysis of microstructures. Different QPREP etchants are available for macro and micro etching as well as electrolytic etching.

Item No.	Unit	Description
		ELECTROLYTES (CONSISTING OF TWO
		COMPONENTS; TOTAL VOLUME 1 LITRE)
		Description
		Electrolyte for stainless steel, aluminum, aluminum alloys and special materials  for electrolytic etching/polishing
92002680	1 Pc.	K1 - Part A, equals 1 litre in combination with Part B
92002980	1 Pc.	K1 - Part B (perchloric acid), equals 1 litre in combination with Part A
		Electrolyte for titanium
92003011	1 Pc.	TI - Part A, equals I litre in combination with Part B
92003012	1 Pc.	TI - Part B (perchloric acid), equals 1 litre in combination with Par A
		Electrolyte for grey iron
92003014	1 Pc.	F1 - Part A, equals 1 litre in combination with Part B
92003015	1 Pc.	F1 - Part B (perchloric acid), equals 1 litre in combination with Part
		<ul> <li>Shipping of hazardous materials will be charged extra</li> <li>Download of Safety Data Sheets at www.qatm.com</li> </ul>
		ACCESSORIES FOR QETCH 100 M (KRISTALL 650)
		Description
		Electrolyte-bottle with screw top
95003955	1 Pc.	Volume 1 litre
		Accessories set for Qetch 100 M (Kristall 650) in suitcase
Z6201001	1 Pc.	Suitcase (single-order No.):  • 5 pcs V-ring (Order No.: 95003606)  • 1 pc profile ring material, appr. 150 mm (Order No.: 06201052)  • 1 pc flexible end piece for profile ring (Order No.: 06201051)  • 1 pc tube cutter (Order No.: 95004030)  • 10 pcs filter pads Ø 40.5 mm (Order No.: 95003985)

·1 pc dolphin clamp (Order No.: 82000374)





VISIPRO-I

	Item No.	Unit	Description
			ETCHANTS
			Description
			Ready-to-use etching solutions for microstructural contrasting
	95014346	500 ml	VisiPro-I Etchant for visualizing the former austenitic grain boundaries (for quenched or tempered low-alloy quenched and tempered steels and case-hardened steels)
	95014347	11	VisiPro-I Etchant for visualizing the former austenitic grain boundaries (for quenched or tempered low-alloy quenched and tempered steels and case-hardened steels)
EW	95017581	500 ml	VisiPro-I Fast etchant for visualization of former austenite grain boundaries on quenched and tempered unalloyed and low alloy steels through bearing steels (e.g. 102Cr6). Etching time: approximately 2 to 6 minutes, depending on the material.
EW	95017582	11	VisiPro-I Fast etchant for visualization of former austenite grain boundaries on quenched and tempered unalloyed and low alloy steels through bearing steels (e.g. 102Cr6). Etching time: approximately 2 to 6 minutes, depending on the material.
	95014348	500 ml	VisiPro-II Etchant for visualizing the former austenitic grain boundaries (for quenched or tempered low-alloy quenched, tempered case hardening steels and anti-friction bearing steels)
	95014349	11	VisiPro-II Etchant for visualizing the former austenitic grain boundaries (for quenched or tempered low-alloy quenched, tempered case hardening steels and anti-friction bearing steels)
	95006393	11	Barker reagent (for Aluminum grain boundaries)
	92002601	1 kg	Heyn Etchant (for steel, phoshorous segregations, macro etching, copper alloys, brass)
	95000508	500 ml	Copper A, chloride version (for Cu, Cu-alloys, brass and bronze)
	92002602	1 kg	Adler Etchant (for steel, weldings, macro etching)
	92002603	11	Alcoholic picric acid, 5% Picral (for steel, martensite)
IEW	92006878	11	Alcoholic Nitric Acid 5% Nital (for unalloyed and low alloyed steels)
	92002597	11	Alcoholic nitric acid, 3% Nital (for unalloyed and low alloyed steels)
	92002596	11	Alcoholic nitric acid, 1% Nital (for unalloyed and low alloyed steels)
	92002605	1 kg	V2A etchant (for austenitic steels), applied at approximately 60°C, contains the additive Dr. Vogel's economy etchant, which acts as an inhibitor and optimizes etching performance.
	92002678	1 kg	Sodium hydroxide solution (for aluminum alloys)
	92004240	1 kg	Oberhoffer Etchant (for steel, segregations, flow-lines, macro/ micro etching)
	92004492	1 kg	Kroll Etchant (for aluminum alloys, titanium)
	92004493	1 kg	Fry Etchant (for steel, macro/micro etching, flow lines)
	92004222	1 kg	CU2 etching fluid (copper, copper with sulfide and oxide inclusions)
	92002750	1 kg	Sodium picrate (for cementite detection in steel)
	95002313	11	Kalling 1 Etchant (for martensitic stainless steel)
	95002347	1 kg	Kalling 2 Etchant (for nickel, nickel alloys, stainless steels, nickel- copper alloys)
	95002434	1	Color etching according to Klemm I (for low carbon steels), stock solution
	95002390	20 g	Potassium bisulfite for Klemm I
	95002435	11	Color etching according to Klemm II (copper, solder joints), stock solution
	95002391	50 g	Potassium bislufite for Klemm II
	95002436	11	Bechet-Beaujard Etchant, prior austenite grain boundaries
	95002408	1 kg	Murakami Etchant (for hard metals, molybdenum/molybdenum alloys, chromium alloys, tungsten and tungsten alloys)
			Download of Safety Data Sheets at www.qatm.com



STORAGE BOTTLE FOR USED ETCHANT

Description

95017528 1 Storage bottle for used etchant



Item No.	Unit	Description
		ACCESSORIES FOR ETCHING
		Description
		Etching bowl, DURAN® glass with cover, heat-resistant
92002629	1 Pc.	Ø 60/H 40 mm
92002628	1 Pc.	Ø 80/H 50 mm
92002430	1 Pc.	Ø 100/H 60 mm
92002626	1 Pc.	Ø 150/H 80 mm
		Etching bowl, polyethylene (PE), with lid
95012078	1 Pc.	Ø 90/H 40mm
95012079	1 Pc.	Ø 110/H 55mm
95012080	1 Pc.	Ø 110/H 75mm
		Etching bowl, polypropylene (PP), with screw coupling
95012081	1 Pc.	Ø 60/H 60mm
95012082	1 Pc.	Ø 115/H 70mm
		Crucible tong
92002431	1 Pc.	Crucible tong, stainless
95008097	1 Pc.	Crucible tong, stainless with insulated handle

## **Aprep** Analyzing



When analyzing samples, QPREP offers support for the correct analysis of samples via specialist literature, cleaning products, desiccator, personal protective equipment, and more equipment.

Item No.	Unit	Description
		LAB ACCESSORIES AND EQUIPMENT
		Description
		Face protection shield according to DIN EN 166 1 3 - S complete protection of face, unlimited field of view, acids and bases, resistant, robust plastic material, shatterproof, scratch-resistant
95002951	1 Pc.	Face protection shield, according to DIN EN 16613-S
		Protective laboratory apron, made of PVC, with neck and side bonds, clean edges, without fabrics
95004848	1 Pc.	Protective laboratory apron, 900 x 1100 x 0.5 mm



	Item No.	Unit	Description
			Nitrile gloves (single use), conforms to EN 420, EN 374
	95008893	100 Pcs.	Nitrile gloves, conforms to EN 420, EN 374, size M
	95007658	100 Pcs.	Nitrile gloves, conforms to EN 420, EN 374, size L
	95008208	90 Pcs.	Nitrile gloves, conforms to EN 420, EN 374, size XL
			Protective gloves black, comply with standard EN 388, EN 374
1	95003208	Nitrile gloves (single use), conforms to EN 420, EN 374, size M Nitrile gloves, conforms to EN 420, EN 374, size M Nitrile gloves, conforms to EN 420, EN 374, size M Nitrile gloves, conforms to EN 420, EN 374, size L Regords 90 Pcs.  Nitrile gloves, conforms to EN 420, EN 374, size L Nitrile gloves, conforms to EN 420, EN 374, size XL  Protective gloves black, comply with standard EN 388, EN 374 - high resistance to water-soluble chemicals - very durable  Safety goggles conforms to EN 166, length-adjustable Safety goggles conforms to EN 166  Mounting adhesive  Mounting adhesive  Mounting adhesive 100 g, excellent bonding for metals and ceramics  Cotton wool  Cotton wool  Specimen cleaning wipes  Sample protection laquer  Sample protection laquer  Sample protection laquer, spray (conservation of samples)  Bottles  Bottles  1 Pc. Spray bottle, 250 ml Measuring cylinder  Measuring cylinder  Measuring cylinder  Measuring cylinder, 50 ml Measuring cylinder, 50 ml Measuring cylinder, 100 ml  Specimen drying unit  Specimen drying unit for set up on table Specimen drying unit, with wall bracket  CLEANING AGENTS FOR ULTRASONIC CLEANE Description  Cleaning concentrate, alkaline - for universal use and intensive cleaning - use 1 - 5%, pH 10 at 25%, removes oils, fats, silicon oil respigments, ink and proteins	
			Safety goggles conforms to EN 166, length-adjustable
	92005963	1 Pc.	Safety goggles conforms to EN 166
			Mounting adhesive
	92002779	100 g	Mounting adhesive 100 g, excellent bonding for metals and
			Cotton wool
	92002630	200 g	Cotton wool
			Specimen cleaning wipes
	92008773	100 Pcs.	Specimen cleaning wipes
			Sample protection laquer
	92004428	300 ml	
			Rottles
	92008770	1 Pc.	
	92002432	1 Pc.	, ,
	92004491	1 Pc.	Washing bottle with narrow neck, 500 ml
			Measuring cylinder
	92004302	1 Pc.	
	92004303	1 Pc.	
			Consider and desire a verit
	A5810355	1 Dc	
	A5810419		
_	A5810419	I PC.	
			Cleaning concentrate, alkaline <ul> <li>for universal use and intensive cleaning</li> <li>use 1 – 5%, pH 10 at 2%, removes oils, fats, silicon oil residues</li> </ul>
	92002614	11	Tickopur R 33
			<u> </u>
			CLEANING AIDS
			Description
			individually applicable for intensive cleaning
	95004662	11	Ethanol, 99% denatured
	95004663	51	Ethanol, 99% denatured
	95004664	10 I	Ethanol, 99% denatured



95004662	11	Ethanol, 99% denatured
95004663	51	Ethanol, 99% denatured
95004664	10 I	Ethanol, 99% denatured
92004510	11	Aceton, chemically pure, for degreasing of sample surfaces

### PANE CLEANING FOR FUME CUPBOARD

#### Description

#### Pane cleaning set in suitcase

27510002	TPC.	<ul> <li>Pane wiper magnet</li> </ul>
		<ul> <li>2x 30 pcs. cleaning cloths</li> </ul>



Item No.	Unit	Description
		REPLICATION SET
		Description
		Replica system for non-destructive analyzing of microstructures quick cured 2 components compound for applying to surfaces; the cured replica can be removed easily and analysed directly
92006498	2x50 ml	2-components-compound
92006609	1 Pc.	Dosing gun
92008692	48 Pcs.	Mixing tube
		ASSEMBLY CLEANER
		Description
		for sample preparation, for replication set, in spray can
92004376	500 ml	Assembly cleaner spray
		PRECISION REPLICATION MATERIAL
		Description
		Replica system for surface structures (metallic or mineral),
		for surface roughness inspection (R, Ra)
95001664	900 ml	2-components-compound standard
		ACCESSORIES FOR MICROSCOPY
		Description
		Supporting accessories
92004109	1 kg	Plasticine
92002943	5 Pcs.	Microscope slides, metal, 76x26 mm
92004243	100 Pcs.	Microscope slides, glas, 32x24 mm
92004256	100 Pcs.	Microscope slides, glas, 40x24 mm
M1321000	1 Pc.	Specimen press  for parallel fixation of specimen on microscope slide  comfortable operation with minimal effort  compact, robust and durable  made of aluminum with anodised surface



#### Description

#### Storage systems for readily prepared samples

		Storage systems for readily prepared samples
92002898	1 Pc.	Disc cabinet 320 x 320 mm, for discs Ø 300 mm with 6 drawers
92002717	1 Pc.	Disc cabinet, 290 x 290 mm, for discs $\emptyset$ 200 and 250 mm with 5 drawers
95012025	1 Pc.	Desiccator cabinet 310 x 525 x 375 mm
95012026	1 Pc.	Shelf for desiccator cabinet
92002868	1 kg	KC-drying pearls, for use with desiccator
A7500417	1 Pc.	Sample box, 320 x 320 x 58 mm for 56 Samples Ø 25-32 mm
A7500418	1 Pc.	Sample box, 320 x 320 x 58 mm for 25 Samples Ø 38-50 mm





Item No. Unit Description

LITERATURE

Description

Expert Guide Materialography/Metallography,
QATM Academy

95016622 1 Pc. Expert Guide Materialography/Metallography



Notes	



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