



OVERVIEW OF DIAMOND SUSPENSIONS AND THE AVAILABLE GRAIN SIZES

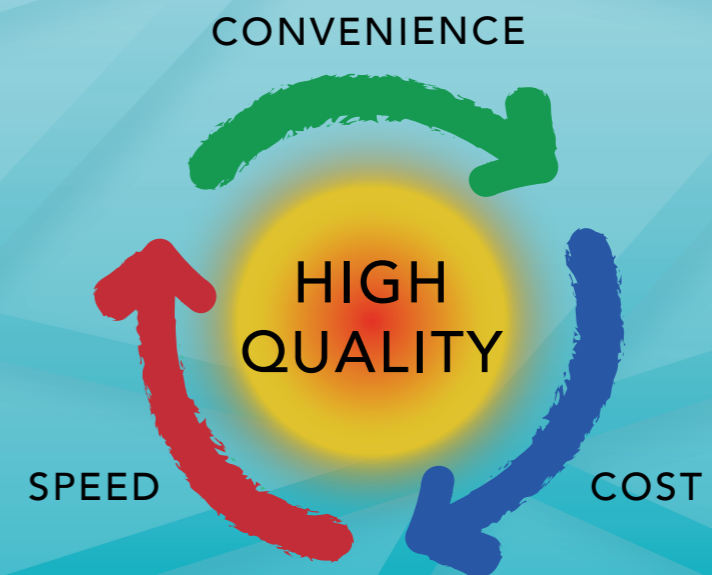


Diamond Suspensions

– THE SMARTER ALTERNATIVE FOR METALLOGRAPHIC PREPARATION

Available grain sizes	Polycrystalline Diamond Suspensions					
	Water-based				Water-free	
	DiaMaxx	DiaDoublo	Aka-Poly	Aka-Poly+	DiaDoublo	Aka-Poly
15 µm	•	•	•	•	•	•
9 µm	•	•	•	•	•	•
6 µm	•	•	•	•	•	•
3 µm	•	•	•	•	•	•
2.5 µm	•	•	•	•		
1 µm	•	•	•	•	•	•
0.7 µm	•		•			
0.5 µm			•			
0.25 µm	•	•	•	•	•	•
0.1 µm			•			
50 nm			•			
25 nm			•			

Available grain sizes	Monocrystalline Diamond Suspensions			
	Water-based			
	DiaMaxx	DiaDoublo	Aka-Mono	Aka-Mono+
15 µm	•	•	•	•
9 µm	•	•	•	•
6 µm	•	•	•	•
3 µm	•	•	•	•
1 µm	•	•	•	•



SPEED

Aka-Poly+ Suspensions for maximum removal and shortest preparation times.

CONVENIENCE

The All-in-one Suspensions DiaMaxx and DiaDoublo provide the easiest way of using Diamond Suspensions.

COST

Monocrystalline Diamond Suspensions present a cost efficient solution for grinding and polishing.

No matter what is most important for you, the Akasel Diamond Suspensions provide continuously High Quality.



THE SMARTER ALTERNATIVE

MADE IN DENMARK

AKASEL.COM





Diamond Suspensions

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FOR METALLOGRAPHIC PREPARATION

Aka-Suspensions

To have maximum influence on the preparation time and cost, our Aka-Suspensions are the premiere choice. The material to be prepared, the preparation disc to be used, and parameters like temperature and humidity all have an influence on the suspension/lubricant ratio. By adjusting the ratio, the shortest possible preparation time or the most cost efficient preparation can be achieved. The Aka-Suspensions are available with poly- and monocrystalline diamonds and high and extra-high diamond concentration.

For water-sensitive materials even a water-free version is available.

All-in-one Diamond Suspensions

For the most convenient sample preparation, all-in-one diamond suspensions are ideal.

DiaMaxx and DiaDoublo are a precisely defined, ready mixture of diamond suspension and lubricant. By applying just one liquid, in the amount necessary for correct lubrication, you automatically get a sufficient amount of diamonds as well. This makes sample preparation easy and fail-safe.

Two types of suspensions are available, DiaMaxx, based on our high concentration suspension Aka+ and the high performance lubricant Aka-Lube, Clear+ for the best possible performance; and DiaDoublo, the economic solution for all standard applications.

Both products are available with polycrystalline and monocrystalline diamonds, and DiaDoublo also in a water-free version.

Water-free Diamond Suspensions

For the preparation of water-sensitive materials we have developed both a "normal" diamond suspension and an All-in-one Suspension. They are glycol based, containing less than 0.1% water and the samples are very easy to clean after the preparation. The water-free suspensions are available with polycrystalline diamonds.

Polycrystalline Diamonds

Consisting of many small individual crystals, polycrystalline diamonds break down during preparation revealing continuously new cutting edges. They remain sharp when breaking down and are therefore

suited for the preparation of hard materials and where high removal rates are required.

Monocrystalline Diamonds

Monocrystalline diamonds consist of one, blocky crystal with fewer cutting edges. They are not as efficient as polycrystalline diamonds, but very well suited for the preparation of softer materials.

Diamond Concentration

For our products we use exclusively high quality diamonds in very narrow grain size distributions and

in very high concentrations. We are proud about that and therefore we state diamond type, concentration and grain size distribution on the labels of our products for comparison purposes.

Our products also contain the same amount of diamonds in ct (weight) throughout a specific product line, and are either 100% polycrystalline or 100% monocrystalline.

Stable Suspensions

Many metallographic preparation machines today are equipped with automatic dosing units. To achieve reproducible results, stable suspensions are absolutely necessary. Otherwise diamond concentration would change over time, and the preparation results would change accordingly. Therefore all our suspensions are stable, providing the best possible results.

Environmentally Friendly

Our diamond suspensions are either water- or in case of the water-free suspensions, glycol-based. No solvents or other additives are used and all suspensions are biodegradable.

Aka-Poly+
3 µm

100% polycrystalline diamonds.
Median (50%) 2.84 µm.
Tolerance 2.70 - 2.98 µm
Upper limit (99%) 4.1 µm
Concentration 40 ct/l
pH 7.0 ± 0.2

Polycrystalline
Diamond Suspension
for metallographic
sample preparation.
Extra High Concentration.

Batch: WYYOT/GAQNS
Made: 09/01/2018

1 l

No.: 44145015 (2234)

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