


Date:	09.12.2022								
Editor:	Füllmann, Robert								
Material:	Magnesium alloys								
Mounting:	Cold, D=40 mm, EpoClear (epoxy resin)								
<b>TIP // For reference images, take a look at our wide-ranging microstructure database. There you will find many micrographs of various materials, including their state of heat treatment and the etching agent we used.</b>									
<a href="#">Link to our Microstructure Database (Gefügedatenbank)</a>									
	Grinding					Polishing			
	1	2	3	4	5	1	2	3	4
Base	SiC paper	SiC paper	SiC paper	SiC paper	SiC paper	PanTec	MolTec	NapTec	ChemTec
Grit size	P180	P320/P500	P800	P1200	P2500	3 µm mkd water-based	1 µm mkd alcohol-based	1/4 µm mkd alcohol-based	0,04 µm Alumina slurry water-free
Lubricant	H <sub>2</sub> O	H <sub>2</sub> O	H <sub>2</sub> O	coolTec II	coolTec II	coolTec II	coolTec II	coolTec II	-
Drive	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm
Rotation direction	><	><	><	><	><	><	><	><	><
Downforce !centralpressure!	15 N/sample	15 N/sample	15 N/sample	15 N/sample	15 N/sample	15 N/sample	15 N/sample	15 N/sample	10 N/sample
Time	until planar	1,5 min	1,5 min	1,5 min	0,5 min	2,5 min	2,5 min	2,5 min	2,5+0,5 ethanol
Etching	0,5% Nital (wet etching/ ethanol), ca. 15-20 s, remove etching tongs from etching solution while etching								
Remarks	Ultrasonic cleaning in ethanol or isopropanol, ca. 30s								

<b>Legend [EN]</b>	<b>Legende [DE]</b>
DPS = Diamond Plane Grinding Disc   DSS = Diamond Grinding Disc   ADAMANT = ADAMANT Diamond Grinding Disc   IDAMANT = IDAMANT Diamond Grinding and Polishing Disc	DPS = Diamant-Planschleifscheibe   DSS = Diamant-(Fein)schleifscheibe   ADAMANT = ADAMANT Diamantschleifscheibe   IDAMANT = IDAMANT-Schleifpolierscheibe
>< Countercurrent   >> Concurrent	>< Gegenlauf   >> Gleichlauf
mkd = monocrystalline Diamond, concentration 50 carat/litre pkd = polycrystalline Diamond, concentration 50 carat/litre	mkd = monokristalliner Diamant, Konzentration 50 Karat/Liter pkd = polykristalliner Diamant, Konzentration 50 Karat/Liter
Lubricant: coolTec I (Water-based)   coolTec II (Alcohol-based)   coolTec III (Oil-based)   coolTec IV (Water-based)   coolTec Orange (Anhydrous)	Schmiermittel: coolTec I (Wasserbasis)   coolTec II (Alkoholbasis)   coolTec III (Ölbasis)   coolTec IV (Wasserbasis)   coolTec Orange (Wasserfrei)
Spüli: Dishwasher detergent with H <sub>2</sub> O for cleaning the samples	Spüli: Spüli mit Wasser zum Reinigen der Proben
<a href="#">You can find metallography supplies in our store (link)</a>	<a href="#">Verbrauchsmaterialien finden Sie in unserem Shop (Link)</a>