Date:	20.07.2022
Editor:	Füllmann, Robert
Material:	Aluminium Alloys EN AW-2000 to AW-7000
Mounting:	cold, D=40 mm, EpoClear (Epoxy-Resin)

Schmitz Metallographie GmbH

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.

Link to our Microstructure Database (Gefügedatenbank)

	Grinding					Polishing			
	1	2	3	4	5	1	2	3	4
Base	SiC paper	SiC paper	SiC paper	SiC paper	SiC paper	MolTec	MolTec	ChemTec	
Grit size	P180	P320	P600 & P1000	P1200	P2500	3 µm mkd water-based	1 µm mkd water-based	0,04 µm SiO2 OPS	
Lubricant	H2O	H2O	H2O	H2O	H2O	coolTec I	coolTec I	-	
Drive	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm	
Rotation direction	><	><	><	><	><	><	><	><	
Downforce !centralpressure!	10 N/sample	10 N/sample	10 N/sample	10 N/sample	10 N/sample	10 N/sample	10 N/sample	10 N/sample	
Time	until planar	1,0 min	1,0 min	1,0 min	0,5 min	2,5 min	2,5 min	2+0,5 Spüli	
Etching	5% NaOH or Kroll; electrolytic with Barker for 5000 alloys								
Remarks									

Legend [EN]	Legende [DE]
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** = polycristalline 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 (Wassserfrei)
Spüli: Dishwasher detergent with H2O for cleaning the samples	**Spüli:** Spüli mit Wasser zum Reinigen der Proben
You can find metallography supplies in our store (link)	Verbrauchsmaterialien finden Sie in unserem Shop (Link)