

Date:	21.11.2012								
Editor:	Füllmann, Robert								
Material:	AlSi12 AlMg4,5Mn0,7 AlMgSi1 AlSiCuAg ZnAl4 ZnAl15 each soldered on galvanized steel DX51D+Z								
Mounting:	cold, D=40 mm, EpoClear (Epoxy-Resin)								
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	PanTec	MolTec	NapTec	
Grit size	P320 & P500	P800	P1200	P2500	P4000	6 µm mkd alcohol-based	1 µm mkd alcohol-based	0,25 µm mkd alcohol-based	
Lubricant	H2O	H2O	H2O	Ethanol	Ethanol	coolTec II	coolTec II	coolTec II	
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	1,5 min	1,5 min	1,5 min	0,5 min	0,5 min	2,5 min	2,5 min	2,5 min	
Etching	Double etching: first 1% Nital (1% strength; important because overetched quickly) approx. 3 seconds, then 5% NaOH approx. 20 seconds								
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 = 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 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)