


Date:	10.01.2022								
Editor:	Füllmann, Robert								
Material:	Bearing steel (~60 HRC), e.g. 102Cr6 (1.2067) 1.4123 (X40CrMoVN 16-2)								
Mounting:	Hot, D=40 mm, Black bakelite resin (fiber-glass reinforced)								
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	ADAMANT	ADAMANT	ADAMANT	ADAMANT		PanTec	ChemTec		
Grit size	P80	P220	P600	P1200		3 µm mkd water-based	< 0,05 µm SiO ₂ OPS		
Lubricant	H ₂ O	H ₂ O	H ₂ O	H ₂ O		coolTec I	-		
Drive	150 rpm	150 rpm	150 rpm	150 rpm		150 rpm	150 rpm		
Rotation direction	><	><	><	><		><	><		
Downforce !central pressure!	30 N/sample	30 N/sample	30 N/sample	30 N/sample		30 N/sample	20 N/sample		
Time	until planar	3,0 min	3,0 min	3,0 min		2,5 min	1,5+0,5 Spüli		
Etching	3% Nital (4% Pikral)								
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 (Alkohobasis) 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)