

Date:	09.12.2022
Editor:	Füllmann, Robert
Material:	Cemented carbide, WC with 1-2% Co binder phase
Mounting:	Hot, D=40 mm, Black epoxy resin EPO

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	1	2	3	4	5
Base	ADAMANT	ADAMANT	ADAMANT	ADAMANT	IDAMANT	PanTec	PanTec	PanTec	NapTec
Grit size	P80	P220	P600	P1200	15 µm	6 µm mkd water-based	3 µm mkd water-based	1 µm mkd water-based	1/4 µm mkd water-based
Lubricant	H ₂ O	H ₂ O	H ₂ O	H ₂ O	coolTec I	coolTec I	coolTec I	coolTec I	coolTec I
Drive	300 rpm	300 rpm	300 rpm	300 rpm	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm
Rotation direction	>>	>>	>>	>>	>>	>>	>>	>>	>>
Downforce !centralpressure!	30 N/sample	30 N/sample	30 N/sample	30 N/sample	20 N/sample	20 N/sample	20 N/sample	20 N/sample	20 N/sample
Time	10,0 min	10,0 min	10,0 min	10,0 min	10,0 min	10,0 min	10,0 min	10,0 min	3-5 min
Etching									
Remarks	The polishing steps can be reduced if necessary.								

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 H ₂ O 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)