Date:	09.12.2022
Editor:	Füllmann, Robert
Material:	Cemented carbide, universal recipe
Mounting:	Hot, D=40 mm, Black epoxy resin EPO

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	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_2O	H_2O	H_2O	H_2O		coolTec I	-		
Drive	300 rpm	300 rpm	300 rpm	300 rpm		300 rpm	300 rpm		
Rotation direction	>>	>>	>>	>>		><	><		
Downforce !centralpressure!	30 N/sample	30 N/sample	30 N/sample	30 N/sample		30 N/sample	20 N/sample		
Time	10,0 min	10,0 min	10,0 min	10,0 min		3,0 min	2+0,5 Spüli		
Etching	Murakami (KOH version), 10 s for SEM (first 10 s, then + 2 min, then + 3 min)								
Remarks	By the triple echting, differnt phases can be visualized easily. If problems occur, use 6 µm Idamant (after grinding).								

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)