

Date:	09.12.2022
Editor:	Füllmann, Robert
Material:	Ferro titanite (C special) Powder-metallurgical material with 33wt% TiC in Fe matrix
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	5	1	2	3	4
Base	ADAMANT	ADAMANT	ADAMANT	ADAMANT		MolTec	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	300 rpm	300 rpm	300 rpm	300 rpm		300 rpm	150 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		5,0 min	2+0,5 Spüli		
Etching	3% Nital (ca. 10 s)								
Remarks	Matrix: martensite + carbides								

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)