Date:	09.12.2022
Editor:	Füllmann, Robert
Material:	Scale plate (oxide) from heat treatment furnace from base material 18CrNiMo6-7
Mounting:	Cold, D=40 mm, EpoClear (epoxy resin) with post-infiltration

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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	Kurth	
Base	SiC paper	SiC paper	SiC paper	SiC paper	SiC paper	PanTec	PanTec	MolTec	
Grit size	P120	P180	P800	P2500	P4000	6 µm mkd water-based	3 µm mkd water-based	1 µm mkd water-based	
Lubricant	H_2O	H_2O	H_2O	H_2O	H_2O	coolTec I	coolTec I	coolTec I	
Drive	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm	150 rpm	50 rpm	
Rotation direction	>>	>>	>>	>>	>>	><	><	oscillating	
Downforce !centralpressure!	30 N/sample	30 N/sample	30 N/sample	30 N/sample	30 N/sample	30 N/sample	30 N/sample	630 g*	
Time	until planar	1,5 min	1,0 min	2x 0,5 min	2x 0,5 min	3,0 min	3,0 min	2 h	
Etching									
Remarks	* 1 large weight								

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)