

# SINTERING - DATA - SHEET

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<b>powder - code:</b>	V30- 608
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<b>main component:</b>	Fe	<b>binder:</b>	2% alcohol	<b>date:</b>	25.08.2008
<b>machine type:</b>	DSP-25	<b>aver. Grain size</b>		<b>testperson:</b>	OM
<b>utilisation:</b>	laser weldable backing bond for drill bits				

<b>heating by</b>	<b>die:</b>	X	<b>temperature measure- ment by:</b>	<b>pyroscope:</b>	
	<b>punches:</b>			<b>thermocouple:</b>	X

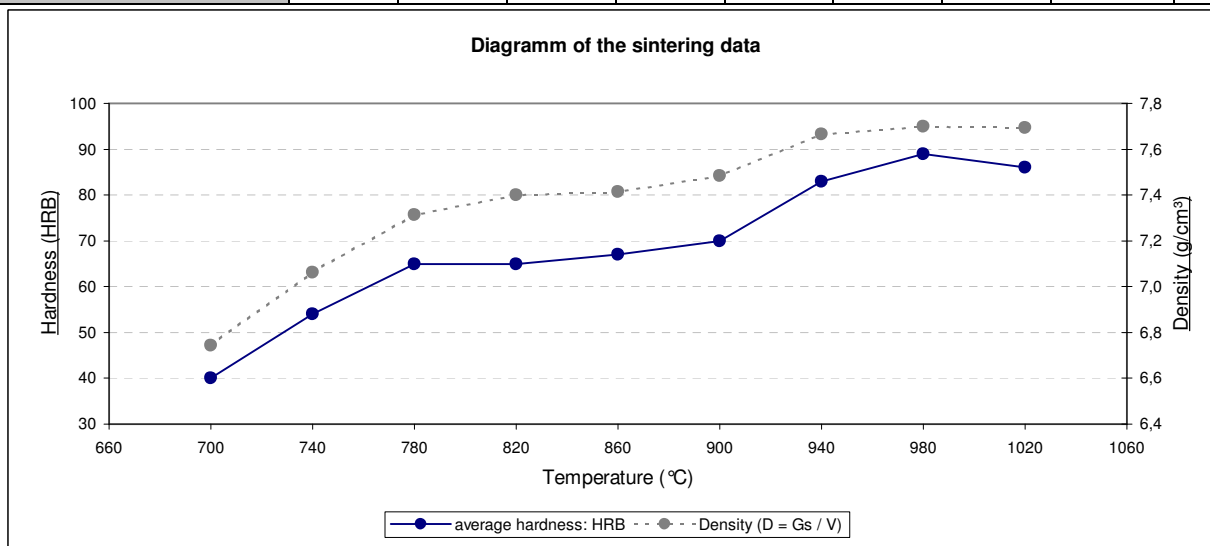
<b>temperature:</b>	°C	700	740	780	820	860	900	940	980	1020
<b>specific pressure:</b>	N/mm <sup>2</sup>	35	==>							
<b>sintering time:</b>	min	3	==>							

<b>bending strength:</b>	N/mm <sup>2</sup>									
<b>stretch at break:</b>	%									
<b>average hardness:</b>	HRB	40	54	65	65	67	70	83	89	86
<b>hardness scattering:</b>	HRB	38 - 41	51 - 56	63 - 66	63 - 66	66 - 68	69 - 70	83 - 84	88 - 90	84 - 87
<b>average hardness:</b>	HRC									
<b>hardness scattering:</b>	HRC									
<b>weight:</b>	g	17	==>							
<b>weight after sintering:</b>	g									

<b>Volume</b> ( $V = G_s - G_w$ )	cm <sup>3</sup>									
<b>Density</b> ( $D = G_s / V$ )	g/cm <sup>3</sup>	6,75	7,06	7,31	7,40	7,41	7,48	7,67	7,70	7,69

<b>weight loss</b> ( $G = G_e - G_s$ )	g									
<b>rel. Weight loss</b> ( $Gr = G * 100$ )	%									

<b>notes:</b>									
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**Attention:**

Depending on mould-geometry and type and place of temperature-measurement an increase up to 60 °C must be done to get the same result !  
 In case of moulds with a high number of graphite punches a certain friction value needs to be considered. To obtain the detailed formula you are welcome to contact us.

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