

# SINTERING-DATA-SHEET

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<b>powder - code:</b>	V18-1113
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<b>main component:</b>	Fe	<b>binder:</b>	2 % alcohol	<b>date:</b>	07.01.2014
<b>machine type:</b>	DSP-25	<b>aver. Grain size</b>		<b>testperson:</b>	CT
<b>utilisation:</b>	Bond for Fickert - medium				

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

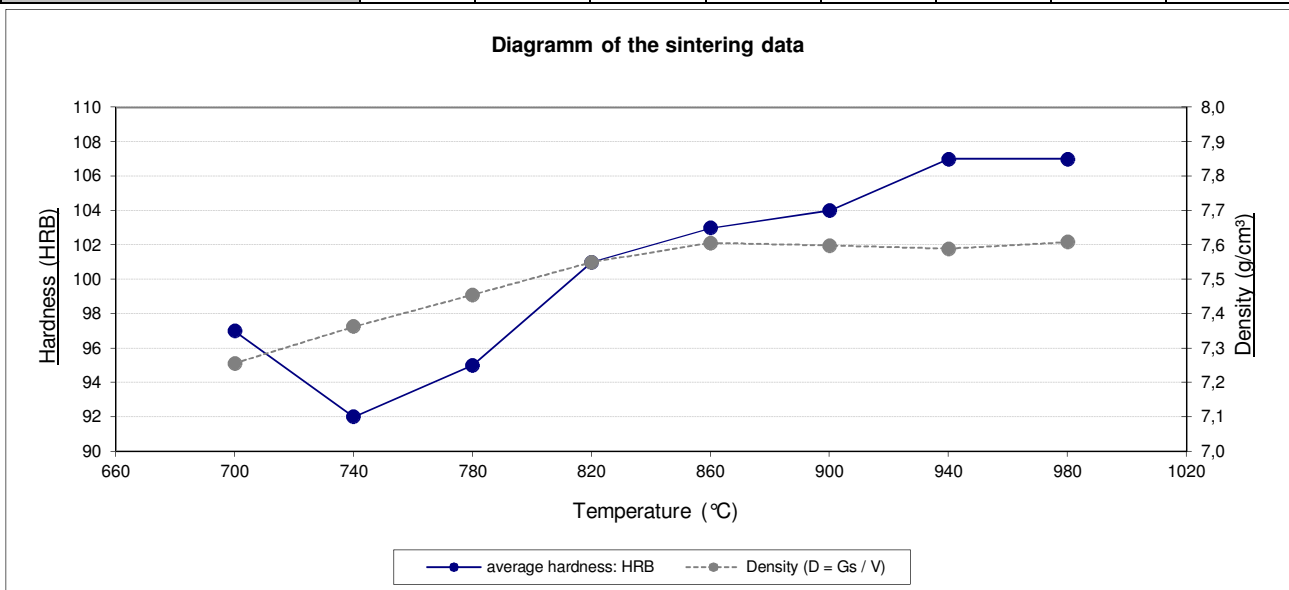
<b>temperature:</b>	°C	700	740	780	820	860	900	940	980
<b>specific pressure:</b>	N/mm <sup>2</sup>	35	==>						
<b>sintering time:</b>	min	3	==>						

<b>bending strength:</b>	N/mm <sup>2</sup>								
<b>stretch at break:</b>	%								
<b>average hardness:</b>	HRB	97	92	95	101	103	104	107	107
<b>hardness scattering:</b>	HRB	93-101	91-94	93-98	100-102	101-104	104-105	105-109	106-108
<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>	7,26	7,36	7,46	7,55	7,61	7,60	7,59	7,61

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

<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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