

SINTERING-DATA-SHEET

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powder - code:	Diaweld-1000
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main component:	Fe,Co,Ni	binder:	2 % alcohol	date:	15.05.2013
machine type:	DSP-25	aver. Grain size		testperson:	OE
utilisation:	Bond for welding, low hot-pressing temperature				

heating by	die:	X	temperature measure- ment by:	pyroscope:	
	punches:			thermocouple:	X

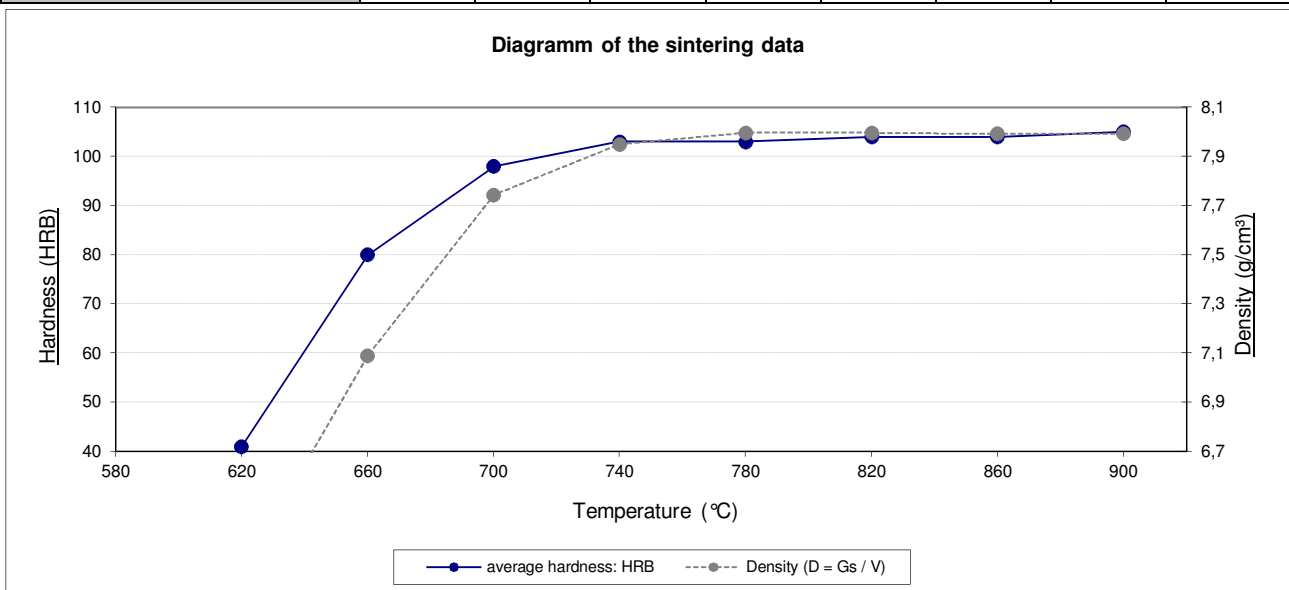
temperature:	°C	620	660	700	740	780	820	860	900
specific pressure:	<i>N/mm²</i>	35	==>						
sintering time:	<i>min</i>	3	==>						

bending strength:	<i>N/mm²</i>								
stretch at break:	%								
average hardness:	HRB	41	80	98	103	103	104	104	105
hardness scattering:	HRB	38-44	76-83	97-100	101-104	103-104	103-105	103-105	104-105
average hardness:	HRC								
hardness scattering:	HRC								
weight:	g	17	==>						
weight after sintering:	g								

Volume ($V = G_s - G_w$)	<i>cm³</i>								
Density ($D = G_s / V$)	<i>g/cm³</i>	6,21	7,09	7,74	7,95	8,00	8,00	7,99	7,99

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

notes:									
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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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