

SINTERING - DATA - SHEET

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powder - code: DiaWeld-7000

main component:	Co, Fe, Ni	binder:	2 % alcohol	date:	08.12.2015
machine type:	DSP-25	aver. Grain size		testperson:	OE
utilisation:	Laser weldable Backing for high temperatures				

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

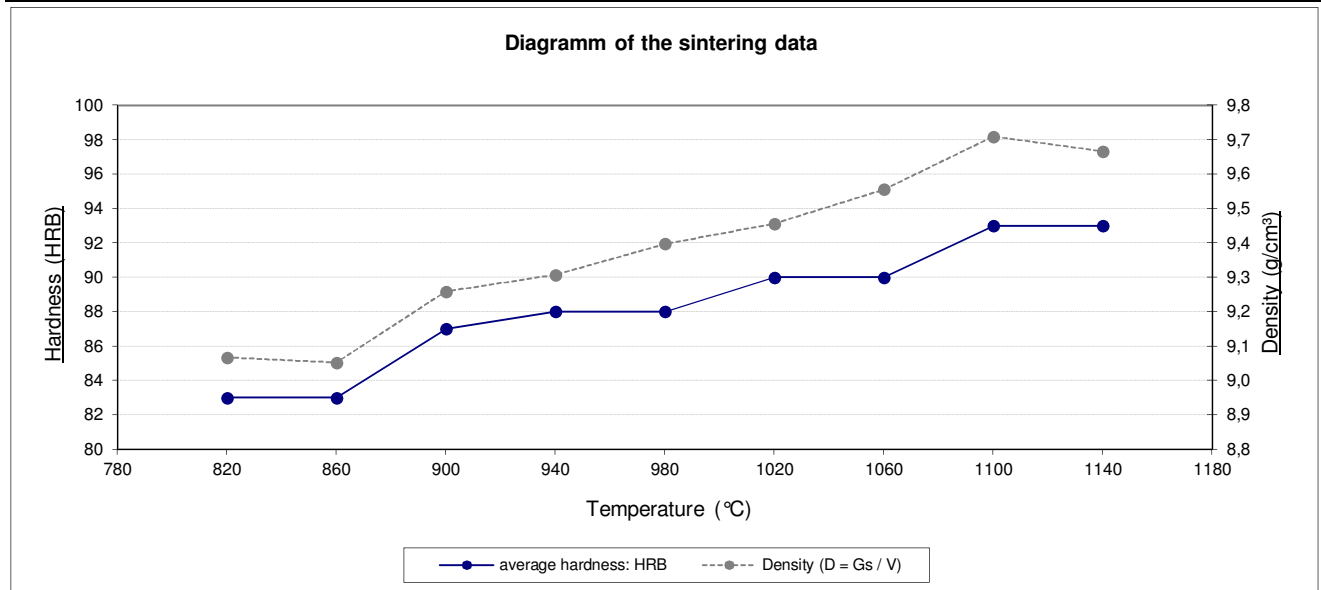
temperature:	°C	820	860	900	940	980	1020	1060	1100	1140
specific pressure:	N/mm ²	35	==>							
sintering time:	min	3	==>							

bending strength:	N/mm ²									
stretch at break:	%									
average hardness:	HRB	83	83	87	88	88	90	90	93	93
hardness scattering:	HRB	80-85	82-84	85-89	85-89	87-89	88-92	88-91	92-94	92-93
average hardness:	HRC									
hardness scattering:	HRC									
weight:	g	17	==>							
weight after sintering:	g									

Volume ($V = G_s - G_w$)	cm ³									
Density ($D = G_s / V$)	g/cm ³	9,07	9,05	9,26	9,31	9,40	9,46	9,56	9,71	9,67

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

notes:



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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