

SINTERING-DATA-SHEET

DR. FRITSCH GmbH & Co. KG

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powder - code:	V14-1093
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main component:	Cu	binder:	2% alcohol	date:	29.07.93
machine type:	DSP-25	aver. Grain size	<63µm	testperson:	Ga
utilisation:					

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

temperature:	°C	500	540	580	620				
specific pressure:	<i>N/mm²</i>	20	==>						
machine pressure:	<i>bar</i>	45	==>						
sintering time:	<i>min</i>	3	==>						
bending strength:	<i>N/mm²</i>								
stretch at break:	<i>%</i>								
average hardness:	HRB	113	115	115	---				
hardness scattering:	HRB	112-114	114-115	114-115					
weight:	<i>g</i>	20	==>						
weight after sintering:	<i>g</i>	19,575	19,36	19,446	10,107				

volume:									
V = G_s - G_w	<i>cm³</i>	2,226	2,202	2,22	1,157				
density:									
D = G_s / V	<i>g/cm³</i>	8,75	8,79	8,76	8,74				

weight loss:									
G = G_e - G_s	<i>g</i>								
rel. Weight loss:									
Gr = G * 100 / G_e	<i>%</i>								

notes:	sample is porous
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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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