

S I N T E R I N G - D A T A - S H E E T

DR. FRITSCH GmbH & Co. KG

Dieselstraße 8

70736 Fellbach

Tel. 0711-518320; Fax 0711-5183210

powder - code:	DIAFE-5000 H
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main component:	Fe	binder:	dry	date:	26.05.2003
machine type:	DSP-25	aver. Grain size	ca. 5 µm	testperson:	OS
utilisation:					

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

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

bending strength:	N/mm ²								
stretch at break:	%								
average hardness:	HRB	99	98	98	99	98	99	99	101
hardness scattering:	HRB	99 - 101	95 - 99	97 - 100	98 - 100	97 - 100	98 - 100	98 - 100	99 - 102
weight:	g		==>						
weight after sintering:	g								

volume: V = G _s - G _w	cm ³								
density: D = G _s / V	g/cm ³	7,46	7,43	7,51	7,50	7,50	7,49	7,46	7,47

weight loss: G = G _e - G _s	g								
rel. Weight loss: Gr = G * 100 / G _e	%								

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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