

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

DR. FRITSCH KG

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powder - code:	DiaWeld-7100
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main component:	Co, Fe	binder:	2 % Alkohol	date:	12.02.02
machine type:	DSP-25	aver. Grain size	< 5 µm	testperson:	CW
utilisation:	Laserweldable Backing Powder				

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

temperature:	°C	900	940	980	1020	1060	1100	1140	1180
specific pressure:	<i>N/mm²</i>	35	==>						
machine pressure:	<i>bar</i>	55	==>						
sintering time:	<i>min</i>	3	==>						
bending strength:	<i>N/mm²</i>								
stretch at break:	<i>%</i>								
average hardness:	<i>HRB</i>	95	101	102	102	104	106	108	107
hardness scattering:	<i>HRB</i>	94-96	100-102	102-103	101-103	104-105	105-106	107-108	107-108
weight:	<i>g</i>	17	==>						
weight after sintering:	<i>g</i>	16,806	17,017	17,135	17,103	16,786	17,018	17,231	17,236

volume:									
V = Gs - Gw	<i>cm³</i>	1,925	1,881	1,896	1,89	1,852	1,863	1,876	1,877
density:									
D = Gs / V	<i>g/cm³</i>	8,73	9,05	9,04	9,05	9,06	9,13	9,15	9,18

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

notes:	T.D. = 9,28
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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 !

Property of Dr. Fritsch KG. Transmission only allowed in explicit agreement with the management.