

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

DR. FRITSCH GmbH & Co. KG

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<b>powder - code:</b>	V14-785
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<b>main component:</b>	Co	<b>binder:</b>	2% alcohol	<b>date:</b>	29.09.92
<b>machine type:</b>	DSP-25	<b>aver. Grain size</b>	<63 µm	<b>testperson:</b>	Ga
<b>utilisation:</b>					

<b>heating by</b>	<b>die:</b>	X	<b>temperature measurement by:</b>	<b>pyroscope:</b>	
	<b>punches:</b>			<b>thermocouple:</b>	X

<b>temperature:</b>	°C	980	1020	1060	1100	1140	1180	1220	1260
<b>specific pressure:</b>	N/mm <sup>2</sup>	15	==>						
<b>machine pressure:</b>	bar	37	==>						
<b>sintering time:</b>	min	3	==>						
<b>bending strength:</b>	N/mm <sup>2</sup>								
<b>stretch at break:</b>	%								
<b>average hardness:</b>	HRC	30	36	37	38	38	38	38	
<b>hardness scattering:</b>	HRC	27-31	34-37	36-38	38-39	38-39	38-39	38-39	
<b>weight:</b>	g	25	==>						
<b>weight after sintering:</b>	g	25,06	24,923	25,005	24,771	24,857	24,714	21,903	

<b>volume:</b> V = G <sub>s</sub> - G <sub>w</sub>	cm <sup>3</sup>	2,553	2,492	2,494	2,46	2,473	2,454	2,156	
<b>density:</b> D = G <sub>s</sub> / V	g/cm <sup>3</sup>	9,82	10	10,03	10,07	10,06	10,07	10,19	

<b>weight loss:</b> G = G <sub>e</sub> - G <sub>s</sub>	g				0,23	0,14	0,29	3,1	
<b>rel. Weight loss:</b> Gr = G * 100 / G <sub>e</sub>	%				0,92	0,57	1,14	12,4	

<b>notes:</b>	==> pearls	==> liquid
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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.