

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

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<b>powder - code:</b>	Diabro 802040
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<b>main component:</b>	Cu	<b>binder:</b>	2% alcohol	<b>date:</b>	09.02.98
<b>machine type:</b>	DSP-25	<b>aver. Grain size</b>	<40 µm	<b>testperson:</b>	Ga
<b>utilisation:</b>					

<b>heating by</b>	<b>die:</b>	X	<b>temperature measure- ment by:</b>	<b>pyroscope:</b>	
	<b>punches:</b>			<b>thermocouple:</b>	X

<b>temperature:</b>	<i>°C</i>	460	500	540	580	620	660	700	
<b>specific pressure:</b>	<i>N/mm<sup>2</sup></i>	20	==>						
<b>machine pressure:</b>	<i>bar</i>	40	==>						
<b>sintering time:</b>	<i>min</i>	3	==>						
<b>bending strength:</b>	<i>N/mm<sup>2</sup></i>								
<b>stretch at break:</b>	<i>%</i>								
<b>average hardness:</b>	HRB	94	99	99	99	97	97	97	
<b>hardness scattering:</b>	HRB	93-95	98-100	98-99	97-99	96-98	97-98	97-98	
<b>weight:</b>	<i>g</i>	17	==>						
<b>weight after sintering:</b>	<i>g</i>	16,84	16,845	16,203	16,396	16,681	16,757	16,822	

<b>volume:</b> $V = G_s - G_w$	<i>cm<sup>3</sup></i>	1,96	1,918	1,816	1,839	1,87	1,88	1,886	
<b>density:</b> $D = G_s / V$	<i>g/cm<sup>3</sup></i>	8,59	8,78	8,91	8,92	8,92	8,92	8,92	

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

<b>notes:</b>	
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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 !

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