

Data Sheet -ZDXPOM W-10Cu

(材料属性表)



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|---|---|-------------------------|--------|--------------------------------|--------|--------|
| Product (产品) | ZDXPOM W-10Cu (For general-purpose) W-10Cu (通用型) | | | | | |
| Product description (产品描述) | Feedstock for metal injection moulding. (金属注射成型原料) | | | | | |
| Oversize factor (收缩率) | Min. | Average | Max. | | | |
| | 1.161 | 1.165 | 1.169 | | | |
| All specified dimensions must be multiplied by this rate. | | | | | | |
| MFI g/10min (熔体流动指数) | min. | Average | Max. | DIN EN ISO 1133 (190°C/21.6kg) | | |
| | 500 | 900 | 1300 | | | |
| Typical composition after Sintering 烧结后典型成分 (按重量百分比计算) | | W | Cu | | | |
| | > | - | 10.0 | | | |
| | < | Bal. | 11.0 | | | |
| Typical properties (典型特性) | Project (项目) | as sintered 烧结态退火 | | | | |
| | Density (密度) | >17.1 g/cm ³ | | | | |
| | Thermal Conductivity (导热系数) | 195W/mK | | | | |
| | Tensile strength (抗拉强度) | 500 MPa | | | | |
| | CTE, linear | 6.40 μm/m-°C | | | | |
| | Hardness (硬度) | HV 300 | | | | |
| Injection process (注射工艺) | Injection temperature (注射温度) | Zone1 | Zone 2 | Zone 3 | Zone 4 | Nozzle |
| | | 185°C | 185°C | 175°C | 150°C | 190°C |
| | Tool temperature (模具温度) | 90-125°C | | | | |
| | Injection speed (注射速度) | 5-15 cm ³ /s | | | | |
| | Screw circumferential speed (螺杆转速) | 5-15 r/min | | | | |
| | Injection pressure (注射压力) | 800-1500 bar | | | | |
| | Hold pressure (保压压力) | 600-900 bar | | | | |
| Back pressure (背压压力) | 0 bar | | | | | |

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| Debinding process (脱脂工艺) | Debinding acid (脱脂酸) | 草酸 |
| | Debinding temperature (脱脂温度) | 125-140°C |
| | Debinding time (脱脂时间) | depending on part thickness (e.g. 3 mm part approx. 3h) (取决于零件厚度) |
| | Debinding process (脱脂工艺) | When the minimum debinding rate of green part when it reaches 6.7%, the debinding process can be terminated. 当生坯最低脱脂率达到 6.7% 时，可以终止脱脂制程 |
| | Equipment (设备) | Catalytic debinding system (催化脱脂系统) |
| Sintering process (烧结工艺) | Sintering atmosphere (烧结气氛) | Hydrogen or ammonia decomposition 氢气或者分解氨 |
| | Sintering substrate (烧结载体) | Non-metallic base (e.g. Al ₂ O ₃) (氧化铝陶瓷片) |
| | Sintering cycle (烧结循环) | Rise from room temperature to 600 °C at 5K / min for 1 hour, then rise to 1050 °C at 5K / min for 3 hours, and then cool down with furnace (5K/min 从室温上升到 600°C，保温 1 小时，5K/min 上升到 1050°C，保温 3 小时，然后随炉冷却) |
| Heat treatment (热处理) | We will be glad to support you in determining the optimal treatment parameters for your application (我们将很乐意为您的应用确定最佳的后续处理工艺) | |
| | Heat treatment (热处理) | NA |
| | Inductive hardening/ (淬火) | NA |
| | Case hardening (表面硬化) | NA |
| | Carbonitriding (碳氮共渗) | NA |
| Shelf life (保质期) | If stored appropriately: 12 months. Protect feedstock against moisture. (如果储存得当：12 个月，防止原料受潮。) | |

All information made available in this specification is based on our present knowledge and experience. The information provided does not relieve the processor of the obligation to carry out his own tests and trials due to the many factors which may affect the sampling.

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