

旋压钼坩埚 MOLYBDENUM SPUN CRUCIBLE

编号 Number PD-11000  
日期 Issue 0-2015-06-16

## 旋压钼坩埚 MOLYBDENUM SPUN CRUCIBLE 蓝宝石长晶炉部件 Sapphire Growing Furnace Component

### 化学特性 Chemical Characteristics

用于生产旋压钼坩埚的钼粉原料符合以下的化学成分限定：

The chemical composition of molybdenum powder used for producing spun crucible shall conform to the following limits:

钼 Mo	≥ 99.95%
镁 Mg	≤ 0.001%
锰 Mn	≤ 0.001%
镍 Ni	≤ 0.002%
铝 Al	≤ 0.002%
铜 Cu	≤ 0.002%
钛 Ti	≤ 0.002%
钙 Ca	≤ 0.003%
硅 Si	≤ 0.003%
锡 Sn	≤ 0.003%
铁 Fe	≤ 0.005%
铬 Cr	≤ 0.005%
碳 C	≤ 0.005%



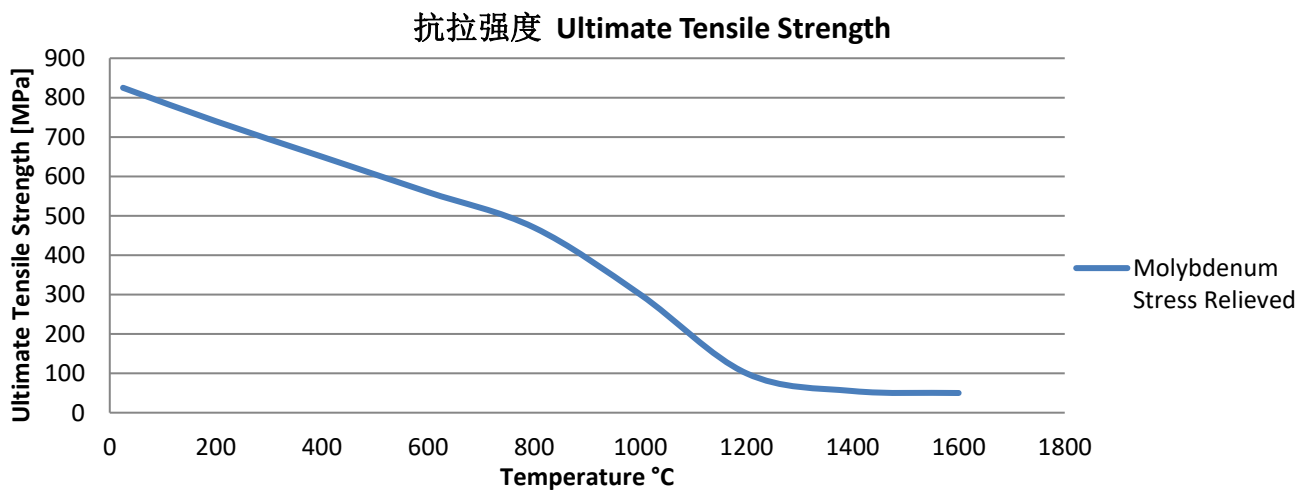
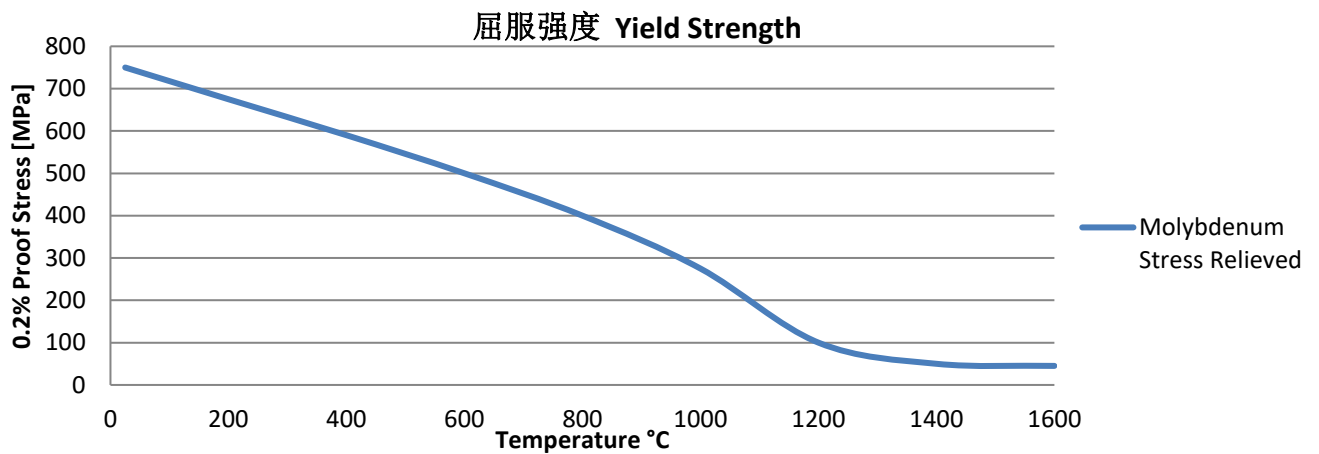
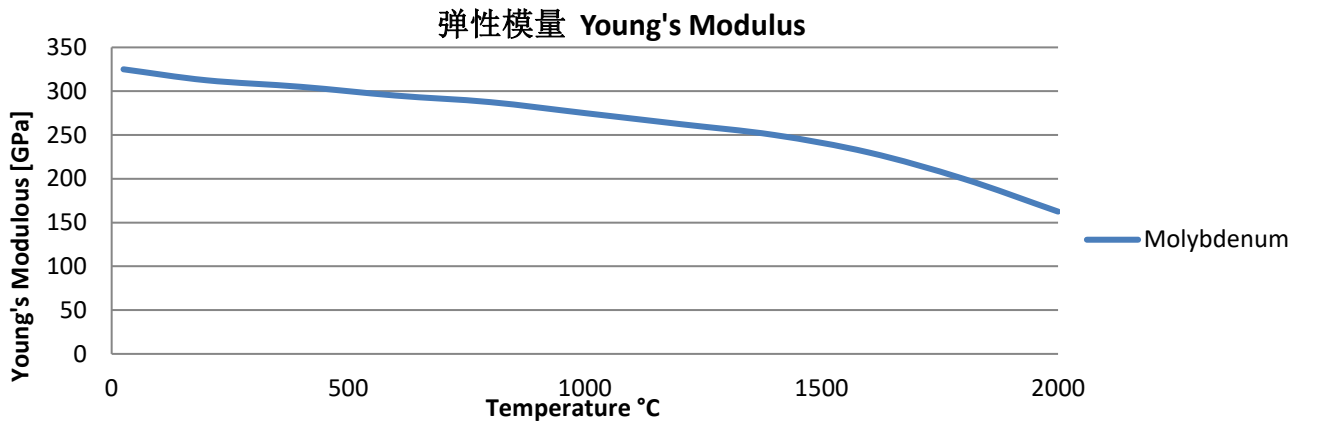
**材料结构** 常规情况下已消除应力，其他情况需根据具体要求进行考虑  
**Structure** Normally will be stress-relieved, other conditions will be considered upon request.

### 常温下的物理特性 Physical Properties under Room Temperature

密度 Density	10.20	g/ml
熔点 Melting Point	2620	°C
导热率 Thermal Conductivity at 20°C	142	[W/(m-K)]
最小拉伸强度 Tensile Strength Min (20°C)	690	MPa
屈服强度 Yield Strength 0.2% offset ,Min(20°C)	550	MPa
弹性模量 Modulus of Elasticity	329	GPa
退火状态维氏硬度 Hardness as Annealed Vickers	250	

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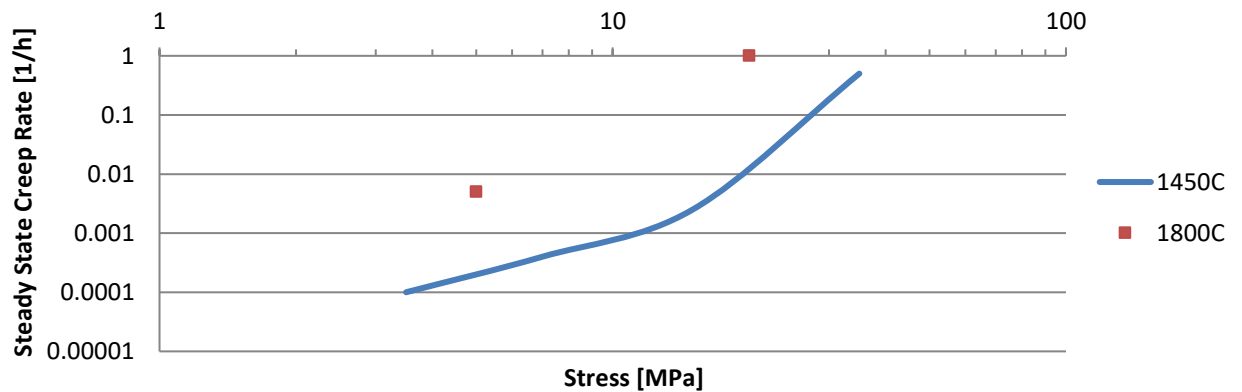
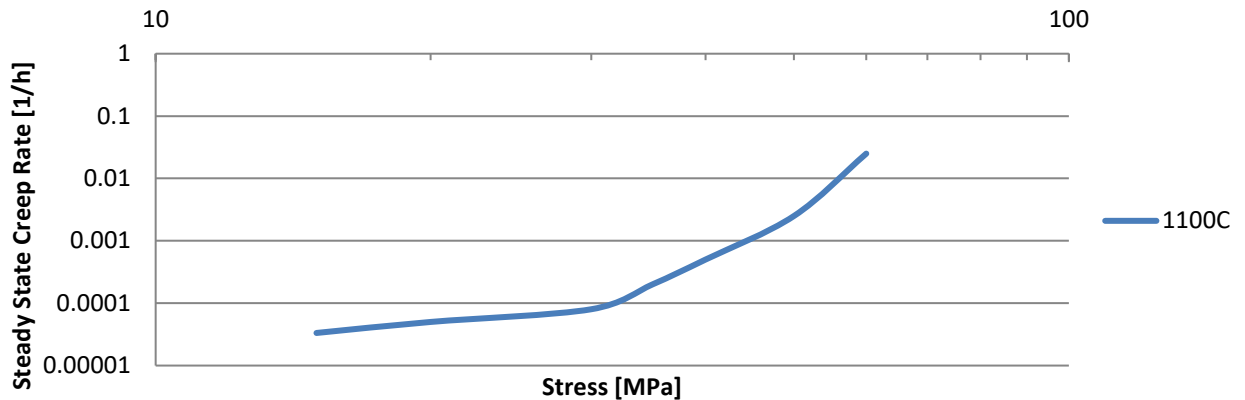
## 温度变化中的物理特性 Physical Properties With Temperature Curve



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### 高温蠕变 Creep Resistance

- 1100°C: 厚度 1.5mm, 1200°C 退火 1 小时 Thickness 1.5mm, Annealed at 1200°C for 1 hour
- 1450°C: 厚度 2.0mm, 1500°C 退火 1 小时 Thickness 2.0mm, Annealed at 1500°C for 1 hour
- 1800°C: 厚度 6.0mm, 1800°C 退火 1 小时 Thickness 6.0mm, Annealed at 1800°C for 1 hour



### 尺寸公差 Dimensional Tolerance

底部厚度 Bottom Thickness		外径 Outer Diameter		内径 Inner Diameter		直径公差 Diameter Variation		高度 Height		高度公差 Height Variation	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
0.236	6	20.83	529.2	19.7	500	+/-0.079	+/-2	19	482.6	+/-0.118	+/-3
0.197	5	20.5	520.7	17	431.8	+/-0.079	+/-2	17	431.8	+/-0.118	+/-3
0.177	4.5	15.35	390	15	381	+/-0.079	+/-2	15	381	+/-0.118	+/-3
0.079	2	4.16	105.7	4	101.6	+/-0.079	+/-2	8	203.2	+/-0.079	+/-2

### 最大产能 Max Capability

投料厚度 Input thickness : 2.0mm – 8.0mm  
产品外径 Out Diameter: 100mm – 600mm  
成品长度 Length of Finished Part: < 1000mm  
投料尺寸 Input Size : < 1500mm

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**表面状态** 提供化学清洗后的哑光表面，也可根据要求提供其他表面处理  
**Surface Condition** A matte finish by chemical cleaning, other finishes by request

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