

高耐磨耗用超硬合金SS类

HIGH WEAR-RESISTANT CEMENTED CARBIDE - SS GRADE




LINE UP..... SS13, SS15

高耐磨耗用超硬合金 (耐磨料磨损)

具有极高的硬度，实现提升磨料磨损的耐磨性。

High wear-resistant cemented carbide (Abrasive wear-resistance)

Extremely high hardness for outstanding abrasive wear-resistance.

 产品说明 Explanation	磨料磨损是硬度越高，磨损量就越小。 通过极其特殊的组成设计，从而提高硬度达到极限。 Regarding abrasive wear, hardness is inversely related to wear amount. Outstanding improved hardness by special composition design.
 使用注意 Note	因为韧性与一般的超硬相比差，所以在使用和加工中要注意。 Attention to handling and processing because of lower fracture toughness than general cemented carbides physically.
 用途/实例 Applications	喷砂嘴、电火花加工用电源模、喷水嘴、除鳞喷嘴等。 Sandblasting nozzle, Power supply die for EDM, Water jet nozzle, Descaling nozzle, etc.

SS类物理性能

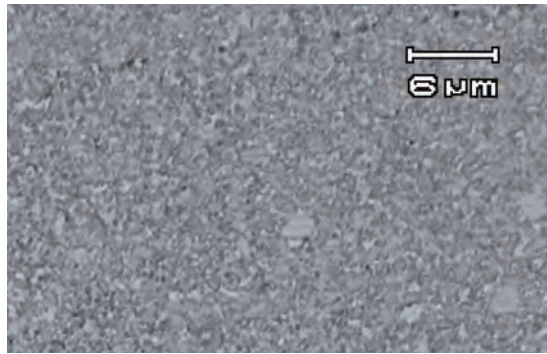
Physical properties of SS grade

本公司产品代号 Our grade	密度 Density [$\times 10^3$ kg/m ³] {g/cm ³ }	硬度 Hardness HV	抗弯强度 TRS [GPa]	Co量 Co content [%]
SS13	14.2	2450	1.0	1
SS15	14.6	2100	2.0	4
参考G1 Reference G1	14.9	1750	2.0	6

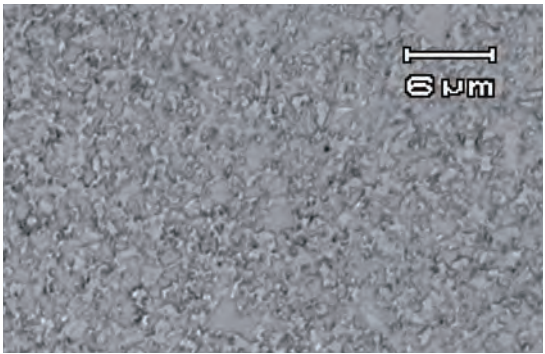
(代表值 / Typical figures)

SS类的组织照片

Micrographs of SS grade



SS13



SS15

金属显微镜 (X1000)
By metallurgical microscope (×1000)

耐磨损特性

Characteristic of wear-resistant

低压喷砂磨损 Blast wear of low pressure

制作下述喷砂用喷嘴，进行8小时连续喷射后之喷嘴内径形状调查结果
(空气压力1.3MPa，使用氧化铝10~50 μ m，喷嘴径7mm)

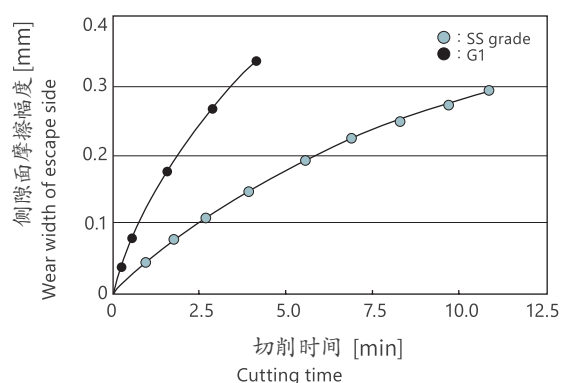
Photo shows the inside of blast nozzle after injected for eight hours running time. (Use the air pressure 1.3 MPa and alumina 10 - 50 μ m. Nozzle diameter 7 mm.)

材质 Grade	SS13	SiC (A公司产品) (A's products)	ZrO ₂ (B公司产品) (B's products)
喷嘴入口 Nozzle entrance			
喷嘴出口 Nozzle exit			
注记 Notes	无变化 No Change	入口严重磨损 出口亦有磨损 Entrance high worn, exit also worn	全体磨损 出口严重磨损 Overall wear, exit is large wear

与碳素材料之磨损性 Wear of carbon material

以本材料制作之SNGN120308模头进行碳素材料切削实验之前端磨损量调查结果

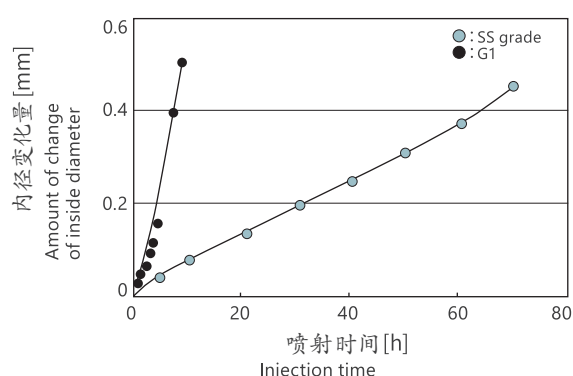
Conducted carbon cutting test by SNGN120308 tip which is made from SS grade. Figure shows wear quantity of cutting part.



高压喷砂磨损 Blast wear of high pressure

高压作业时之喷嘴寿命调查结果 (喷射压力245 MPa)

Figure shows life of blast nozzle injected under high pressure. (Injection pressure 245 MPa)



与金属之微动磨损 Rub wear with metal

放电加工设备给电模之模具内径磨损程度观察结果

Figure shows the inside of feed die by electric discharge machining using fine wire.

