**Grand Sea Cemented Carbide Made Tungsten Cemented Carbide Rods Blank** is the raw material of producing the alloy cutting tools such as end milling cutter, drill and reamer. These cutting tools are widely used for metal processing.

## **Types available:**

- \*Solid short Rods-Metric;
- \*Ground Rods with Chamfer-Metric;
- \*Ground Rods with Chamfer-DIN;
- \*Solid Long Rods-Metric;
- \*Ground Long Rods-Metric;
- \*Ground Rods with Chamfer-Inch;
- \*Rods with Central Coolant Hole;
- \*Rods with Two Straight Coolant Holes;
- \*Rods with 2 Helical Coolant Holes;









## 牌号一览表 Grade for Rod

牌号 (Grade)	wc/%	CO +其他 <i>[</i> %	晶粒度 Grain size (um)	密度 Density (g/cm³)±0.1	硬度 Hardness (HRA)±0.5	硬度 Hardness HV30	抗弯强度 /TRS (kgf/mm²)	断裂韧性 KIC MNm-3/2	ISO 分类
H11F	89	11	1.0	14.3	91.3	1510	≥ 350	11.0	K20-K30
H10F	90	10	0.8	14.4	91.8	1580	≥ 380	10.8	K20-K40
H10S	90	10	0.6	14.4	92.1	1630	≥ 350	9.9	K20-K40
H12U	88	12	0.4	14.3	92.5	1690	≥ 350	9.4	K20-K40
H12U—T	88	12	0.3	14.3	93.0	1800	≥ 350	9.6	K20-K40
H08U-K	92	8	0.4	14.7	93.2	1900	≥ 350	9.0	K10-K20
H09U-T	91	9	0.3	14.5	94.0	2050	≥ 350	9.2	K05-K10
H06U	94	6	0.4	14.85	94.0	2050	≥ 380	8.7	K05-K10

## 牌号推荐

Grade Selection Guide

(●优先推荐、〇次选)

被加	被加工材料		H11F	H10F	H10S	H12U	H12U-T	H08U-K	H09U-T	H06U
Р	钢	钻头		•	•					
		粗铣		•	•	0				j
		精铣			0	•	0	0		
	铸铁	钻头		•	•					
K		粗铣		•	•					
		精铣			0			•		
	高硬材料	钻头		0	•					
Н		粗铣			0	•	0			
		精铣				0	•	•	•	•
	不锈钢	钻头		0	•					8
M		粗铣	•		•	0	0			
		精铣				0	•	•	•	
	60.50	钻头			•					
S	钛合金 高温合金	粗铣	•		•	0	0			
	14111111111111111111111111111111111111	精铣					0	•	•	
	铝合金铜合金	钻头		0	•			•	•	
N		粗铣		0	0	0	0	•	•	
		精铣		0	0	0	0	•	•	
		钻头			•			0	0	•
其他 ( others )	复合材料 (工程树脂)	粗铣						•	•	
( Girlors )	(工作70月)	精铣						•		