



## Advanced Material & Metal Compounds

### □ Niobium Carbide (NbC)

**Niobium carbide** powder is dark grey powder with melting point 3490°C, boiling point 4300°C, density is 7.56g/cm<sup>3</sup>. Being higher melting point, high hardness and chemical stability, NbC is mainly used as high temperature refractory material in aerospace industry, spray coating material and as additive in cemented carbide.



| No. | Item     | Standard Specification                                  |         |                     |      |      |       |          |
|-----|----------|---|---------|---------------------|------|------|-------|----------|
|     |          | Free C  | Total C | Impurities % ≤ each |      |      |       |          |
| 1   | NbC      |   |         | O                   | N    | Fe   | Na/K  | Ca/Al/Si |
| 2   | Chemical | ≤0.15%  | ≥11.1%  | 0.30                | 0.02 | 0.05 | 0.005 | 0.01     |
| 3   | Size     | 0.5-500micron, 5-400mesh                                |         |                     |      |      |       |          |
| 4   | Packing  | 2kgs in composite bag with iron drum outside, 25kgs net |         |                     |      |      |       |          |

### □ Titanium Carbide (TiC)

**Titanium carbide**, gray powder with cubic lattice system structure, melting point 3160°C, boiling point 4300°C, is of high melting point, great hardness and chemical stability, it is mainly used in preparation of cermet, heat resistance material and cemented carbide. With the treatment of solid solution with TaC, NbC, WC and Cr<sub>3</sub>C<sub>2</sub> etc to form compound solid solution, which applies in the spraying material, welding material, hard alloy etc.



| No. | Item     | Standard Specification                                  |         |                     |      |      |       |      |          |
|-----|----------|---|---------|---------------------|------|------|-------|------|----------|
|     |          | Free C  | Total C | Impurities % ≤ each |      |      |       |      |          |
| 1   | TiC      |   |         | O                   | N    | Fe   | K     | Si   | Ca/Na/Nb |
| 2   | Chemical | ≤0.30%  | ≥19.1%  | 0.50                | 0.20 | 0.05 | 0.005 | 0.02 | 0.01     |
| 3   | Size     | 0.5-500micron, 5-400mesh                                |         |                     |      |      |       |      |          |
| 4   | Packing  | 2kgs in composite bag with iron drum outside, 25kgs net |         |                     |      |      |       |      |          |

### □ Vanadium Carbide (VC)

**Vanadium carbide**, gray metallic powder with cubic lattice system structure, melting point 2800°C, density 5.41g/cm<sup>3</sup>, is of chemical stability and excellent high temperature property. It can be used in cutting tool and metallurgical industry, and as additive to fine the WC crystalline grain for improving the property of alloy. It finds more applications in thin film, target material, welding material, hard alloy, cermet, aerospace industry etc.



| No. | Item     | Standard Specification                                  |         |                     |      |      |       |             |
|-----|----------|---|---------|---------------------|------|------|-------|-------------|
|     |          | Free C  | Total C | Impurities % ≤ each |      |      |       |             |
| 1   | VC       |   |         | O                   | N    | Fe   | K     | Ca/Na/Nb/Si |
| 2   | Chemical | ≤0.50%  | ≥17.7%  | 0.50                | 0.10 | 0.05 | 0.005 | 0.01        |
| 3   | Size     | 0.5-500micron, 5-400mesh                                |         |                     |      |      |       |             |
| 4   | Packing  | 2kgs in composite bag with iron drum outside, 25kgs net |         |                     |      |      |       |             |

✉ E2-1-1011 Global Center, No.1700  
Tianfu Avenue North, Chengdu 610041, China

☎ Tel+28 8518 7251/7252/7253

Fax+28 8518 4110