Ti(C,N) titanium carbonitride powder

Ti(C,N) Titanium Carbide nitride powder, is a kind of grey-black powder, Cas No. 12654-86-3, UN No. 3178, Chemical formula TICN, is a zero-dimensional ternary solid solution. TiC and TiN constitute the Titanium carbide nitrides foundation, has the FCC lattice NaCl structure, simultaneously may also with TaC, NbC and so on many kinds of transition metal carbide form the solid solution. Widely used in spraying, coating, cutting tools, powder metallurgy and metal ceramic products.

The advantage of TiCN powder by Changsha Langfeng metallic material Co., Ltd Choose High purity 99.99% Titanium oxide and High purity carbon black raw material, ensure the purity of Titanium carbide powder;
The special original additive application technology, ensure the powder grain densification, carbide sintered uniform, uniform particle size;
Unique carbide sintering technology ensures Single-phase solid solution low oxygen content, low free carbon, stable product quality.
Ti (C,N) powder has the advantages of TiC and TiN, with high melting point, high hardness, wear resistance, oxidation resistance, corrosion resistance and other characteristics, and has good thermal conductivity, electrical conductivity and chemical stability, is an ideal tool coating material. Titanium carbonitride coating can improve the bonding strength with the matrix, while the composite material can have a variety of properties. Titanium carbonitride is an all-purpose coating material, in the impact mode, injection mold and cutting tools in the field of performance is particularly good. Titanium carbonitride is easily peeled off, so that cost can be saved in the production of expensive injection mold parts. With the original coating tool to obtain a 5-fold life, you can peel the coating and then re-coating, and then get 5 times the length of life, and keep the cycle going.

The cerments made by TiCN has the following characteristics: hardness (HRA) up to 91-95, with good wear resistance and the ideal resistance to crescent crater wear, high-speed cutting steel wear rate is very low, its High wear resistance than the carbide 3-4 times; in the 1100-1300 °C high temperatures can still be cutting, the general cutting speed 2-3 times higher than the carbide; has good chemical stability and antioxidant capacity; Suitable for high-speed cutting tool material, can well control the geometric accuracy and tolerance of the work-piece, high finish, high feed rate; processing carbon steel, stainless steel, micro alloyed steel, and ductile iron when can achieve very good results. Particularly titanium alloy material which difficult to processing, the processing speed can reach 300-350 m / min, and can improve the surface smoothness of the work-pieces.
<table>
<thead>
<tr>
<th>Grade</th>
<th>W</th>
<th>Ti</th>
<th>Nb</th>
<th>Mo</th>
<th>N</th>
<th>Total Carbon</th>
<th>Free Carbon</th>
<th>Fe</th>
<th>Si</th>
<th>S</th>
<th>O</th>
<th>Na</th>
<th>K</th>
<th>Ca</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF-Ti (C,N)55</td>
<td>----</td>
<td>&gt;78</td>
<td>----</td>
<td>----</td>
<td>10.9±0.3</td>
<td>9.4±0.3</td>
<td>≤0.15</td>
<td>0.06</td>
<td>0.02</td>
<td>0.01</td>
<td>0.3</td>
<td>0.005</td>
<td>0.005</td>
<td>0.02</td>
</tr>
<tr>
<td>LF-Ti (C,N)73</td>
<td>----</td>
<td>&gt;78</td>
<td>----</td>
<td>----</td>
<td>6.3±0.3</td>
<td>13.5±0.3</td>
<td>≤0.15</td>
<td>0.06</td>
<td>0.02</td>
<td>0.01</td>
<td>0.3</td>
<td>0.005</td>
<td>0.005</td>
<td>0.02</td>
</tr>
<tr>
<td>LF-WSN-N</td>
<td>16.9±0.5</td>
<td>51.0±0.5</td>
<td>16.0±0.5</td>
<td>----</td>
<td>6.8±0.5</td>
<td>9.5±1.0</td>
<td>≤0.15</td>
<td>0.06</td>
<td>0.02</td>
<td>0.01</td>
<td>0.3</td>
<td>0.005</td>
<td>0.005</td>
<td>0.02</td>
</tr>
<tr>
<td>LF-MS-N</td>
<td>----</td>
<td>58.0±0.5</td>
<td>----</td>
<td>26.0±1.0</td>
<td>3.0±0.5</td>
<td>13.4±0.5</td>
<td>≤0.15</td>
<td>0.06</td>
<td>0.02</td>
<td>0.01</td>
<td>0.3</td>
<td>0.005</td>
<td>0.005</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Particle size: 0.5-500 micron, 5-400mesh; Particle size and chemical composition are modified on request

Changsha Langfeng metallic material CO.,Ltd brief introduction

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Changsha Langfeng Metallic Material Co., Ltd

Changsha Langfeng metallic material CO., Ltd uphold the mission of the world benefit, is committed to doing the field of science and technology advances in new materials, builders, build the world's material industry aircraft carrier!

Our company specializes in R & D, production and sales of new materials for aviation and aerospace, new materials for military rocket systems, spraying materials, functional materials, special ceramic materials, cemented carbide, metal ceramic materials and cutting tools.

The company has 16,000 square meters of standard factory, covering 50 acres, 180 employees. There are a full range of testing equipment and strong technical force; we have a 50-person R & D team, including 2 academicians, 10 Professors, 20 Ph.D. The company has been recognized by the state enterprise technology centers, national laboratory accreditation, the drafting of national standards units, access to a number of invention patents and Gold Award, maintaining long-term technical cooperation with the Chinese Academy of Sciences, Central South University and Changsha Institute of Mining and Metallurgy.

Products are widely used in metallurgy, construction, electronics, machinery, petroleum, textile, aerospace, cemented carbide and metal ceramics, and other high-tech fields. Product sales has covered more than 50 countries and regions in the world, a total of more than 600 customers, by the broad masses of the user's consistent high praise.

Company culture

Company vision: Promoter in the field of new materials science and technology, become the carrier of new materials industry.

Company mission: Benefiting the world

Enterprise business philosophy: integrity, quality, innovation, win-win

Enterprise service concept: respect for customers, quick response, constant improvement and the pursuit of the better

Enterprise spirit: teamwork, courage to open up, never abandon, create brilliant

Enterprise values: for the excellent quality of the legislation of the enterprise, to get the heart of the people with quality service.

Enterprise responsibility: to create value for customers, for employees to build a successful life stage.

Business Pursuit: In the next five years, our overall plan is through an additional investment of USD 80 million. By 2023, we will become a world-class production and R&D base for new materials, sales revenue will up to 10 billion US dollars.