(Ti, Ta) C titanium tantalum multiple carbide solid solution powder, the formula: (Ti, Ta) C, gray-black powder, is a composite powder solidified by titanium carbide and tantalum carbide. The titanium tantalum carbide solid solution exhibits stable chemical composition, uniform distribution, high solid solubility, less impurities, uniform particle size, we can produce according to the specific requirements.

(Ti, Ta) C titanium tantalum multiple carbide solid solution powder Advantages:

1. Raw materials with high purity:
   High purity titanium oxide, tantalum oxide and high purity carbon black as raw materials, to ensure the high purity of (Ti, Ta) C solid solution powder.

2. Special and patent additives:
   Patented additives ensure the grain size densification, uniform carbonization sintering, uniform particle size.

3. Special carbonization sintering technology:
   Unique carbonization sintering technology to ensure a single-phase solid solution, low oxygen content, low free carbon, stable product quality.
(Ti, Ta) C titanium tantalum multiple carbide solid solution powder as an additive of cemented carbide and cermets, can improve the performance of cemented carbide. Also (Ti, Ta) C powder can be used in thermal spraying, plasma spraying, hard film, the electronics industry.

(Ti, Ta) C titanium tantalum multiple carbide solid solution powder is an important compound carbide powder in manufacturing high performance cemented carbide in the field of metal cutting (such as automobile and machine tool manufacturing). Compared with Fe-based alloy, the adoption of (Ti, Ta) C titanium tantalum multiple carbide solid solution powder can improve the high temperature resistance, red hardness and anti-oxidation diffusion ability of the cemented carbide. Compared with the single carbide powder, (Ti, Ta) C solid solution powder exhibits higher hardness, higher temperature resistance, and better wettability with cobalt powder.
# Chemical Composition (%)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Ti</th>
<th>Ta</th>
<th>Total Carbon</th>
<th>Free Carbon</th>
<th>Fe</th>
<th>Si</th>
<th>Al</th>
<th>O</th>
<th>N</th>
<th>Na</th>
<th>K</th>
<th>Ca</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Ti,Ta)C</td>
<td>35.0±0.5</td>
<td>53.0±0.5</td>
<td>12.0±0.2</td>
<td>≤0.2</td>
<td>0.06</td>
<td>0.01</td>
<td>0.01</td>
<td>0.3</td>
<td>0.2</td>
<td>0.005</td>
<td>0.005</td>
<td>0.01</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Particle size: 0.5-500 microns, 5-400 mesh; Particle size and chemical composition can be produced on request.

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**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.