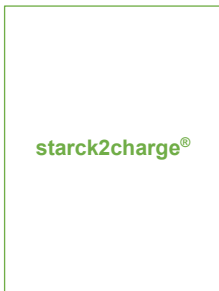


Tungsten Chemicals

Number PD-1133  
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## starck2charge® YTO

### Description of Product

We develop and produce tungsten chemicals specifically for the battery sector, where they enhance performance capacity and safety and extend the life of lithium-ion batteries.

### Chemical Characteristics

(Mass fraction in % [cg/g]; ppm [µg/g])

WO <sub>3</sub> (calculated) <sup>1)</sup>	min.	99.7 %
Al	max.	5 ppm
Ca	max.	3 ppm
Co	max.	3 ppm
Cu	max.	1 ppm
Fe	max.	2 ppm
K	max.	1 ppm
Li	max.	1 ppm
Mg	max.	1 ppm
Mn	max.	1 ppm
Na	max.	3 ppm
Ni	max.	2 ppm
P	max.	4 ppm
Pb	max.	4 ppm
Si	max.	3 ppm
Sn	max.	4 ppm
Ti	max.	1 ppm
V	max.	3 ppm
Zr	max.	1 ppm

### Physical Characteristics

#### Standard Grade

Apparent density	35 – 55	g/inch <sup>3</sup>
Fisher number (as supplied)	15 – 40	µm
Sieve analysis +250 µm	max.	1 %

#### Ultrafine Grade

Apparent density	15 – 25	g/inch <sup>3</sup>
Fisher number (as supplied)	max.	1.2 µm
Sieve analysis +250 µm	max.	1 %

1) Calculated as 100% - Loss of Ignition (750°/1.5h)

### Packaging

Standard Grade: 1800 kg in FIBC (Big Bag) with liner.

Ultrafine Grade: 100 kg in 60 L steel drum with polyethylene bag.