TanSpark®

80/20

- Excellent surface finish
- High metal removal rate
- Low electrode wear
- Easily machined
- Quality assured

TanSpark®
is Svenska Tanso AB:s product for standard- and precision sink erosion machining.

The manufacturing process of the **TanSpark®** material is controlled by our own very strict technical specification in terms of quality and later on expected performance.

The raw material used producing this high end material is obviously quality assured, controlled and certified prior being approved for production. A unique initial production process is your warranty for getting a material without any remaining open porosity or other unwanted elements.
Several subsequent quality controls takes place before **TanSpark®** is made available for sale, all to ensure the stringent demands for an efficient and trouble-free production.

TanSpark® - Highest qaulity without compromise!

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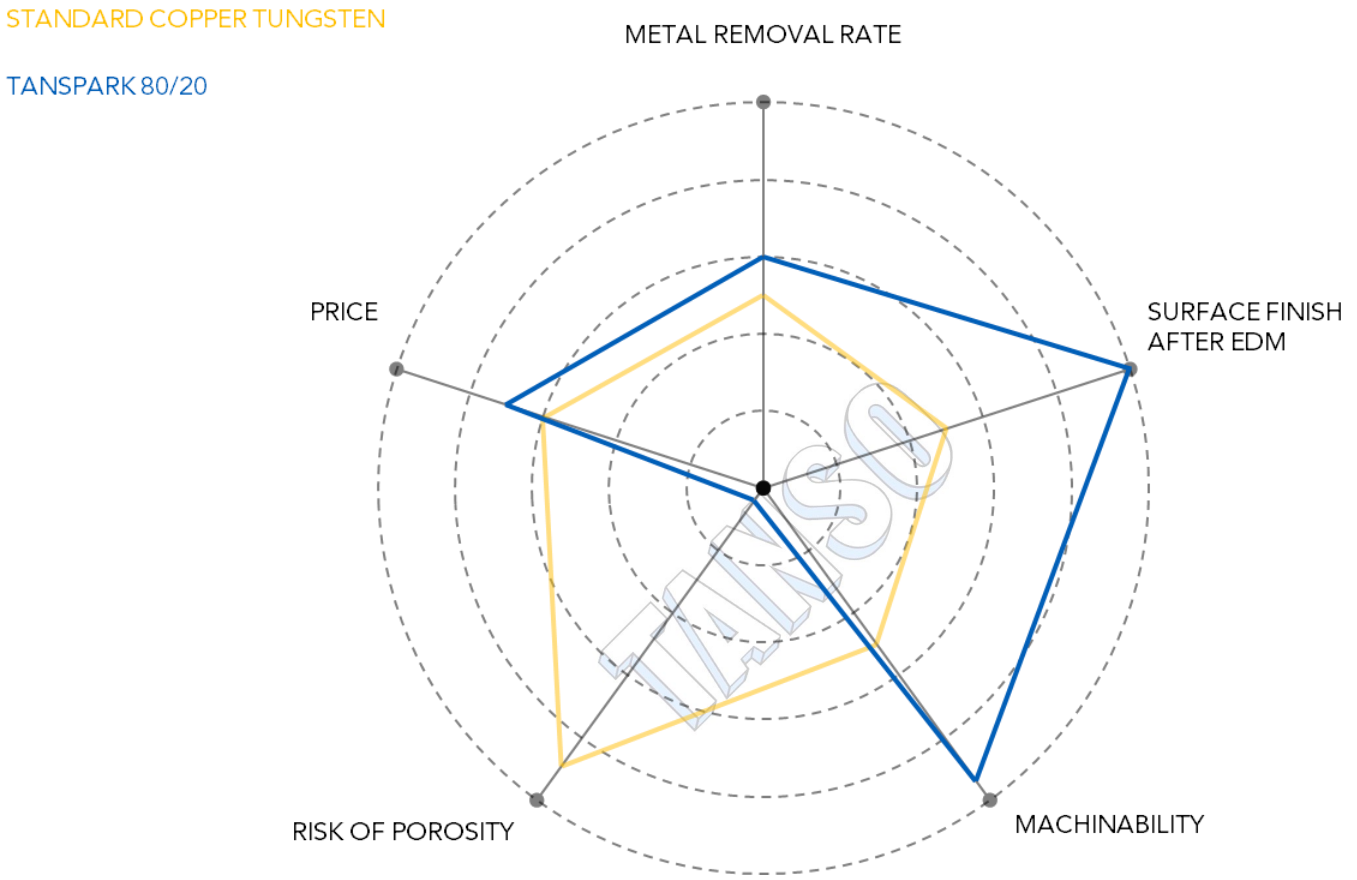
GENERAL CHARCTERISTICS



TANSPARK 80/20 provides higher metal removal rate and lower edge wear than most other tungsten copper composite materials.
The **uniform** and **small grain size** of the tungsten powder used in combination with the final micro hardness makes our **TANSPARK 80/20** the ideal material for **true precision machining.** A **superior surface finish** and **excellent machinability** is to be expected from this **premium material.**
A **very low wear** is also guaranteed if used in combination with **Oelheld Ionoplus IME-ET** or **IME-ZK.**

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TECHNICAL DATA

Material	Composition [%]	Density [g/cm²]	Hardness [HV 10]	Conductivity [IACS %]
TanSpark® 80/20	W: 77 Cu: 23	15.0	230	33

TOLERANCES

Copper	± 3	[%-weight]
Tungsten	balance	[%-weight]
Density	± 0.2	[g/cm²]
Hardness	± 20	[HV 10]
Conductivity	± 2	[IACS %]

All values are based on the average measured values in quality control.
Kindly note that the values fluctuate depending on geometry and dimensional shape.

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MACHINING RECOMMENDATIONS

MILLING

Hard metal grade	ISO K10 - K20
Rake angle	10°
Clearance angle	7 -10°
Angle of approach of the main cutting edge	45°
Cutting speed	80 – 100 m/min
Feed rate	≤ 0.3 mm/U
Condition of machining	Dry

TURNING

Hard metal grade	ISO K10 - K20
Rake angle	6 - 8°
Clearance angle	7°
Cutting speed	60 – 100 m/min
Feed rate	≤ 0.3 mm/U
Condition of machining	Emulsion

DRILLING

HIGH SPEED STEEL	Co 8%
Tip angle	120 - 130°
Clearance angle at the main cutting edge	10°
Clearance angle at the periphery	8 - 10°
Cutting speed	12 – 20 m/min
Feed rate	≤ 0.3 mm/U
Condition of machining	Emulsion

GRINDING

Grinding wheels	K, L, M
Grain size	40 - 60
Binder	Resin Binder
Cutting speed	28 - 32 m/s
Feed	0.02 - 0.10 max
Condition of machining	Emulsion

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