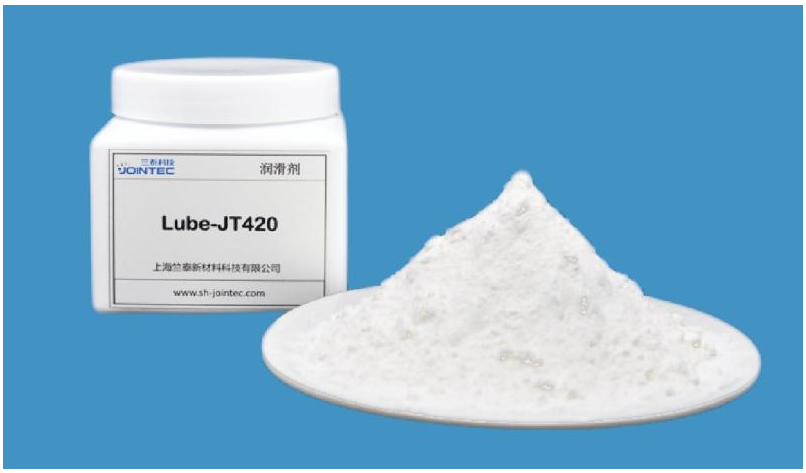
PM Lubricant Lube JT-420



Lube JT-420 is a lubricant with excellent comprehensive performance. It can provide excellent powder performance for powder mix with only 0.6% addition. Due to its high apparent density and good flowability, it has excellent filling performance and low filling height. Therefore, it has good stability and high compaction density in the compaction process, which greatly improves the production efficiency.

At the same time, because of its excellent demoulding performance, the demoulding force is low, the surface of pressed parts are bright, it can significantly improve the mold life, save energy, reduce production costs, and ultimately improve the comprehensive performance of the product. It is suitable for pressing high parts, such as valve guide, gear hub, bearing cover and other parts with high density and complex shape.

High quality, for high-end powder metallurgy product upgrading and efficient production.

Data and properties comparison

Material tested: Fe(100 mesh water atomized)+0.5%C (natural)+0.6%Lube

Powder properties

	Hall Flow s/50g (24H)	Apparent Density g/cm^3	Green strength MPa	Compressibility g/cm^3
Lube JT-420	27	3.32	14	7.14
KP11	27	3.31	15	7.13
Wax	30	3.05	13	7.12

Note: 100 Mesh water atomized pure Iron as base powder, compressed density 7.20 g/cm^3 at 600MP die wall lubrication

Sintered properties

	Tensile strength MPa	Yield strength MPa	Elongation %	dimensional change (green-sintered), %
Lube JT-420	291	196	5.63	0.10
KP11	293	187	5.43	0.12
Wax	290	193	5.40	0.11

Note: compressed density 7.00 g/cm^3, sintered at 1120℃ for 30 min in 90/10 N_2/H_2

Main performance advantages

- High apparent density, low filling height, improves the stability of the pressing process, suitable for high parts pressing, such as valve guide, gear hub, bearing cover et.cl.
- Good flowability, high filling rate, and the production efficiency is improved
- Excellent demoulding performance, low demoulding force, bright surface of pressed parts, improved die life
- The addition amount is small, generally 0.6 wt.%, the compacted density is high, and the economic benefit is improved
- It is easy to remove in the sintering process, and there is no strict requirement for atmosphere to avoid sintering defects

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