

Ti-3Al-2.5V is a kind of near α titanium alloy, whose tensile strength at the room temperature and high temperature are higher by 20% to 50% than that of CP titanium, and welding and cold forming performance are more excellent than that of Ti-6Al-4V. Beta transfer temperature of Ti-3Al-2.5V is around 925 °C. Microstructure of Ti-3Al-2.5V is equiaxed alpha phase and a few beta phase in annealed condition and elongated alpha phase in cold process condition. WST can supply Ti-3Al-2.5V wires in size of dia.2.0mm to dia.6.0mm according to ASTM B348 standard, which are mainly used in manufacture of welding structure parts that require higher tensile strength and good cold forming performance, and high-end spectacle frames.

Table 1

Chemical Composition

Grade	Ti	Al	V	N	O	Fe	C	H	Other	
									Each	Total
Gr9	Balance	2.5~3.5	2.0~3.0	≤0.03	≤0.15	≤0.25	≤0.08	≤0.015	≤0.1	≤0.40

Table 2

Mechanical Properties (at room temperature)

Specification	Diameter (mm)	σ_b (MPa)	$\sigma_{0.2}$ (MPa)	$\Delta 4D$ (%)	Ψ (%)
ASTM B348-13	2.0~6.0	≥620	≥483	≥15	≥25

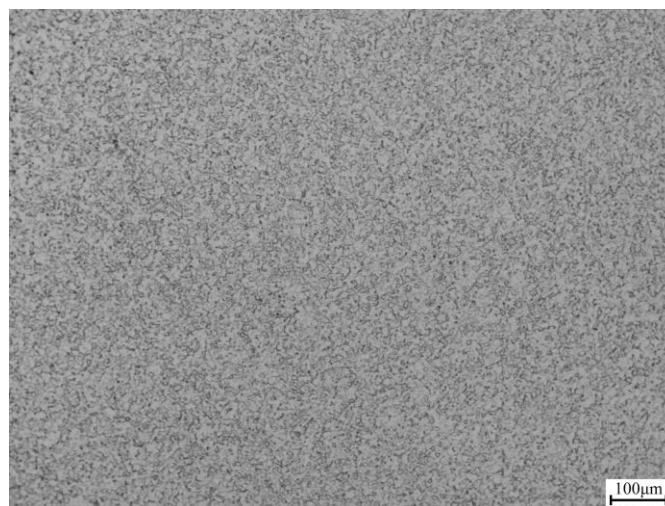


Fig.1 Micrograph (100X)