



Titanium metal powder

Grade EP, dry

Article number 454140

CAS-No. 7440-32-6

Typical Properties

Formula:	Ti
Form and Color:	powder, grey to black
Melting Point:	1668 ± 50 °C

Applications Titanium powders find application in various pyrotechnic areas. Mixed with oxidizing agents they are used in initiators and air bag inflators. They are also used in manufacture of flash cubes, for joining glass or ceramics to metals, and as a getter substance.

Characteristics **Highly flammable solid. Dust explosion hazard.**

Fine Ti metal powder ignites reliably and burns away at high heat within a short time. Ti metal powder is resistant to most chemical reagents but is attacked at elevated temperatures by acids and by oxidizing agents. Dilute aqueous hydrofluoric acid attacks titanium vigorously.

Typical Analysis	Particle Size	min. 99.9 % < 500 µm
	Average Particle Size	4.5 ± 1.5 µm
	Combustion Rate	17.5 ± 7.5 sec/50 cm
	Apparent Density	1.2 ± 0.2 g/cm ³
	Gain on Ignition	63.5 ± 2.5 %
	Ti total	98.0 ± 1.5 %
	Ti active	95 ± 4 %
	Ca	max. 0.5 %
	N	max. 1 %
	Si	max. 0.3 %
	Mg	max. 0.1 %
Al	max. 0.3 %	

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Recommended test methods	Determination of average particle size, particle size distribution, combustion properties and gain on ignition. Gravimetric or colorimetric analysis of titanium and determination of accompanying substances.
Handling	Keep away from flames, sparks and heat sources. Use ground connected metallic apparatus to prevent electrostatic charges causing self ignition. Vacuum drying of suspensions is not recommended. Wear gloves and protective goggles. In case of fire cover with dry sand or dry chemical/dolomite (powdered limestone). Never extinguish with water, carbon dioxide, or halocarbon. See our material safety data sheet and special precautionary advice for more information on safety.
Packaging	As dry powder in tin cans. Ti content 1.0 kg, 2.5 kg or 5.0 kg. Other packaging sizes on request.
Transport classification	GGVE, GGVS, RID, ADR: class 4.2, fig. 12 b IMDG-code: class 4.2 UN-No. 2546, PG. II ICAO: class 4.2 UN-No. 2546, PG. II