



Titanium metal powder

Grade SA, dry

Article Number 45 4160 XXX

CAS-No. 7440-32-6

Typical Properties	Formula:	Ti
	Form and Color:	powder, grey to black
	Apparent Density	approx. 1.4 g/cm ³
	Melting Point:	1668 ± 50 °C

Applications As getter material in vacuum technology. In the manufacture of Hg dispensers in mercury-vapor lamps. As a deoxidizing agent in powder metallurgy. For reactive solders and brazes. Titanium powders also find application in various pyrotechnic areas. Mixed with oxidizing agents they are used in initiators and air bag inflators. They are also used in the manufacture of flash cubes, for joining glass or ceramics to metals, and as a getter substance.

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

A pure titanium powder with high Ti metal content. Ti metal powder is resistant to most chemical reagents but is attacked at elevated temperatures by acids and oxidizing agents. Dilute aqueous hydrofluoric acid attacks titanium vigorously.

Typical Analysis	Particle Size	min. 99 % < 45 µm, 100 % < 75 µm
	Gain on Ignition	min. 64.5 %
	Ti total	min. 99.1 %
	N	max. 0.09 %
	H	max. 0.05 %
	O	max. 0.6 %

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Fe	max. 0.04 %
Mg	max. 0.03 %
C	max. 0.03 %
Specific surface area (BET)	0.15 – 0.25 m ² /g

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. For specific information on our standard methods of testing see the special metals sales program.

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. Titanium powder is a flammable solid and should be handled with caution. Mixing, blending, milling, and grinding of dry Ti powder should be done only under argon or helium. 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 Ti "SA" is packed in polyethylene bags overpacked in tin cans. Standard unit size 2.5 kg and 5.0 kg quantities. Other packaging quantities on request.

Transport

Please refer to our material safety data sheet.

Classification

Chemetall GmbH

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