



Zirconium hydride Grade S

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| Article Number | 453330 |
| CAS-No. | 7704-99-6 |
| Formula | ZrH ₂ |
| Applications | As a getter film in the manufacture of transmitter tubes; as a binding component between grinding agents, carbides, ceramics and metal; as an alloying constituent in powder metallurgy. Applicable as hydrogen source for the foaming of metals. |
| Characteristics | Highly flammable solid. Dust explosion hazard. A fine zirconium hydride powder of exceptional purity; yielding hydrogen by a reversible reaction in vacuum, slowly burning in air. |
| Delivery Form | greyish-black powder |
| Apparent Density | approx. 1.45 g/cm ³ |
| Ignition Point | 250 ± 50 °C |
| Combustion Rate | Chemetall standard: 600 ± 150 sec/50 cm |
| Particle Size | min. 99.9 % < 45 µm by sieving APS 2.6 ± 0.6 µm acc. to Blaine |
| Gain on Ignition | 31.2 ± 1 % (weight increase by combustion) |

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|-----------------------------|---------|-------|------|-------|---------------------|
| Typical Analysis | Zr + Hf | total | 97.2 | ± 0.8 | % |
| | Hf | min. | 0.2 | | % (natural content) |
| | H | min. | 1.9 | | % |
| | Fe | max. | 0.1 | | % |
| | Si | max. | 0.1 | | % |
| | Cr | max. | 0.1 | | % |
| | Cl | max. | 0.02 | | % |

Standard Complies with NAVORD/MIL-Z-21353

Specification Complies with ASTM specification B 349-67

**Recommended
Test Methods** Determination of oxidation value, particle size distribution and average particle size; gravimetric analysis of zirconium, determination of hydrogen content and impurities

Handling Keep away from flames, sparks and heat sources; use earth-connected metallic apparatus to avoid sudden ignition by electrostatic discharge; wear gloves, a face shield or goggles; in case of fire, cover only with sand, limestone or with a dry extinguishing powder suitable for metal fires class D;

DO NOT USE WATER!

Refer to our material safety data sheet and special precautionary advice for specific safety information!

Packaging Dry, in tin cans of max. 4 kg capacity.

**Transport
Classification** GGVE, GGVS, RID, ADR: class 4.1, fig. 14 b
IMDG-code: class 4.1 UN-No. 1437, PG. II
ICAO: class 4.1 UN-No. 1437, PG. II/Drill-Code 3L