

DATA SHEET

Chromox

Alumina doped with Chromium Oxide

(MAC-A994R)

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Description

Specialised alumina material that is doped with chromium oxide. Typically contains **99.4% Al₂O₃** and **0.5% Cr₂O₃**.

Developed in collaboration with CERN, Geneva, mainly for customized components used in particle physics research.

Prime Features

- Fluorescent under UV conditions or when impacted by electrons
- High sensitivity
- Good thermal stability
- High resistance to radiation
- UHV compatibility
- Good thermal shock resistance
- Good thermal quenching characteristics
- Excellent conversion efficiency
- Readily accepts thick film metalizing with noble metals

Typical Applications

- Ceramic fluorescent screens used in accelerator beam observation
- Particle beam targets
- Substrates for conductor and/or resistor networks

Specifications

- Quality Assurance to ISO 9002

MTC Production Capabilities

- Ground or polished surface finishes
- Precision thick film metalizing
- Prototype and batch production

Physical Properties

- | | |
|-----------------------------------|-----------------|
| • Colour: | Pink |
| • Bulk Density: | 3.85 |
| • Grain size, μm: | 10 – 15 |
| • Porosity (apparent), % nominal: | 0 (fully dense) |

Please note that all values quoted are based on test pieces and may vary according to component design. These values are not guaranteed in anyway whatsoever and should only be treated as indicative and for guidance only. 10.09.2007