

Data Sheet

Hilox™ 991 (Mac-A990S)

Description

A high purity, high quality alumina ceramic with an Al_2O_3 content in excess of 99%.

An alumina grade developed for abrasive resistance and mechanical strength in chemically aggressive environments.

Prime Features:

- Excellent resistance to corrosion and chemical attack
- Exceptionally hard-wearing and abrasion resistant
- Dense, non-porous and vacuum tight
- Excellent dimensional stability across wide temperature range

Specifications

- Quality Assurance to ISO 9002

Typical Applications:

- Wear resistant components for rotary and reciprocating pumps handling chemically aggressive media: shafts, bearings, thrust washers, plungers, counterface seats, etc

Production Capabilities:

- Complex components to close tolerances
- Exacting flatness and surface finishes for low friction valve operation and accurate flow control.
- Prototype, batch and volume production

Physical Properties

Colour	Ivory
Bulk Density (fired)	3.9 Mg/m ³
Porosity (apparent)	0% (fully dense) % nominal
Compressive Strength	40 MPa
Flexural Strength (3-point)	370 MPa @20C
Rockwell Hardness (R45N)	86

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.

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We design and manufacture products for demanding applications in a variety of markets using a comprehensive range of advanced ceramic, glass, precious metal, piezoelectric and dielectric materials. We utilise core competences of applications engineering and superior materials technology, together with state of the art fully integrated manufacturing processes to offer precision ceramic components, ceramic-to-metal assemblies and special coatings for use in a variety of applications.