

## Data Sheet

# Hilox™ 965 (Mac-A955S)

### Description

A high quality alumina ceramic with a nominal of  $Al_2O_3$  content of 95-96%.

Ideal material for components where surface finish, resistance to wear and abrasive action are prime factors.

### Prime Features:

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

### Specifications

- Quality Assurance to ISO 9002

### Physical Properties

Colour	White
Bulk Density (fired)	3.75 Mg/m <sup>3</sup>
Porosity (apparent)	0% (fully dense) % nominal
Compressive Strength	40 MPa
Flexural Strength (3-point)	283 MPa @20C
Young's modulus	336 GPa @20C
Rockwell Hardness (R45N)	83

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.

### Typical Applications:

- Sealing plates for faucets and control valves in domestic appliances, beverage dispensing equipment and industrial plant
- Wear resistant components for rotary and reciprocating pumps: 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

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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.