

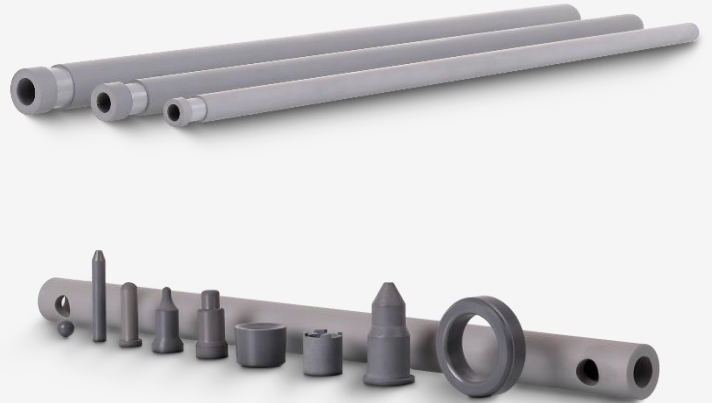
Technical Data Sheet

❖ Syalon 110

The heat resistant

Advantages

- zero porosity high thermal conductivity
- heat resistant up to 1600° C
- high temperature shock resistance up to 800° C high wear resistance
- high chemical resistance



Description

Syalon 110 is a member of the Si-Al O-N family that has been specially developed for high loads under difficult circumstances.

Syalon 110 is ideal for use where extreme temperatures and excellent thermal shock resistance are required. It can be used continuously at 1450° C and can withstand peak loads up to 1600° C

Chemical components

Si_3N_4 90 %
 Al_2O_3 6 %
 Y_2O_3 4 %

Standard diameters

- outer Ø 28mm | inner Ø 16mm
- outer Ø 22mm | inner Ø 12mm
- outer Ø 16mm | inner Ø 9mm
- outer Ø 12,5mm | inner Ø 6,5mm
- outer Ø 10 mm | inner Ø 4 or 6 mm
- outer Ø 6 mm | inner Ø 4 mm

Standard lengths

Various dimensions, for further info please see list with sizes.

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Syalon 110

Mechanical Properties

3 point Room Temperature Modulus of Rupture Specimen 3x3x50 mm, span 19.05mm MPa 650

Weibull Modulus - 10

Room Temperature Unit Tensile Strength MPa 300

Room Temperature Hardness – (HRA) - 88

Density g/cm³ 2,65

Open Porosity % 0

Thermal Properties

Maximum Temperature (peak load) °C 1.600

Maximum Temperature (long term) °C 1.450

Thermal conductivity W/mK 27

Thermal expansion coeff. K⁻¹ 3,04x10⁻⁶

Thermal shock Resistance ΔT°C 800

*1 Density and porosity according to DIN 51918 (Archimedes principal)

*2 Hardness according to ENV 843-4

*3 At room temperature according to EN 843

*4 Long-term temperature in continuous use

*5 Critical temperature difference with rapid temperature change (quenching)

*6 Thermal shock coefficient at constant temperature rise (annealing)

*7 The given values are only valid for the tested samples and therefore only to be used as indication values.

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