

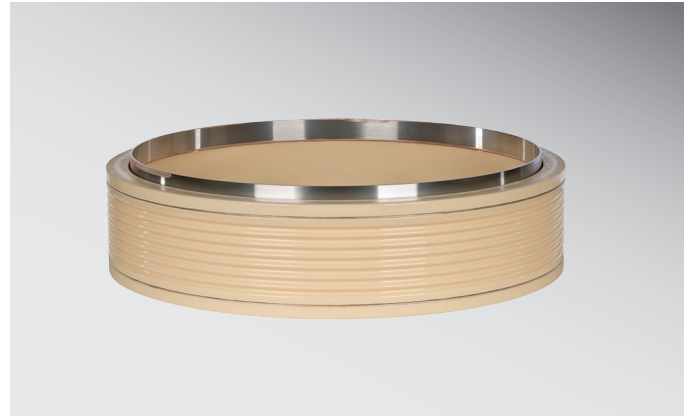
FRIALIT®-DEGUSSIT® HIGH-PERFORMANCE CERAMICS INSULATOR FOR ION SOURCE

Application:

Insulator for H₋ ion source

Material:

Aluminium Oxide **FRIALIT F99.7**
Metal rings with NiFeCo (Kovar / 1.3981)



FRIATEC works photo

Products made of FRIALIT-DEGUSSIT High-Performance Ceramics are used throughout the world in research and development as well as in the medical field.

FRIATEC manufactures insulators in customised dimensions. The ceramic-to-metal components, made of **FRIALIT F99.7** and metal, display only minimal leakage and outgassing rates, and are thus ideal for use in ultra-high vacuum (UHV) conditions.

The insulator shown above is used at the European Organisation for Nuclear Research (CERN) in Switzerland in the Large Hadron Collider (LHC) as a part of the ion source of LINAC 4.

The H₋ ions of the Linac 4, which are in use in the LHC, are accelerated through a positive charged anode. Due to the excellent insulation resistance of FRIALIT-DEGUSSIT Oxide Ceramics, the insulator protects the environment against the high voltage.

With the production of this insulator we faced another challenge and manufactured, with an outer diameter of 580 mm, one of the biggest ceramic-to-metal components FRIATEC has ever produced.

- Minimum desorption and leakage rates
- Heatable up to 300° C
- Excellent insulation properties

Competence plus responsibility

Our clients rightly expect first class service with sustainable value.