



**Thick Film  
Metallized Ceramic**

## ■ Introduction

Innovacera can provide thick film metalizing ceramics. Metalization is a coating of metal material with good adhesion on the ceramic. This can be followed by a barrier diffusion layer of electrolytic pure Nickel (Ni). The third layer of gold (Au) or other precious metal, results in a tightly sealed ceramic to metal assembly ready for the soldering or brazing process. Unmetalized sections of the part can also be glazed.

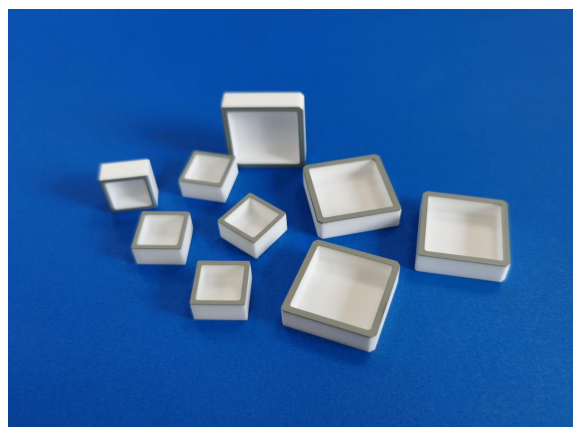
## ■ Specification

Ceramic Materials:	95%,99%alumina, AlN, BeO
Metallization Materials:	Mo/Mn; W/Mn(BeO only)
Metallization thickness:	25±10um; 8-15um(W/Mn)
Plating Materials :	Ni/Ag/Au
Plating Thickness:	2-10um
Pin full strength:	4200kgf/cm <sup>2</sup> avg. (at Φ3.0mm pin)



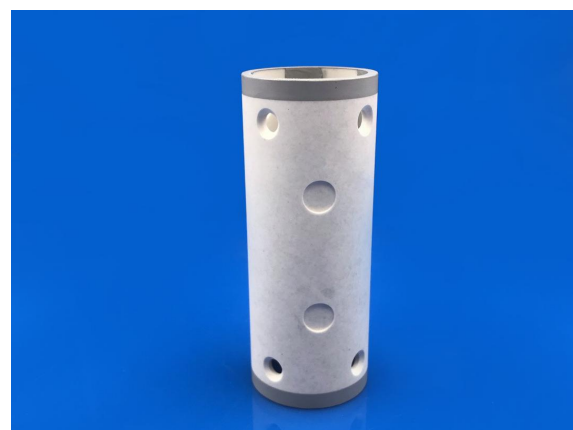
## ■ Benefits

- Strong, robust bond
- Minimal substrate deformation
- Universal applicability for ceramic metal joining
- High processing speeds
- Uniform coating, thickness and density



## ■ Applications

- Feed-through insulators
- Headers
- High-power receptacles
- Insulating discs
- Insulating rings and cylinders
- Precipitator products
- Power Switches
- Vacuum Interrupters
- SCR Housing
- Windows
- X-Ray tubes

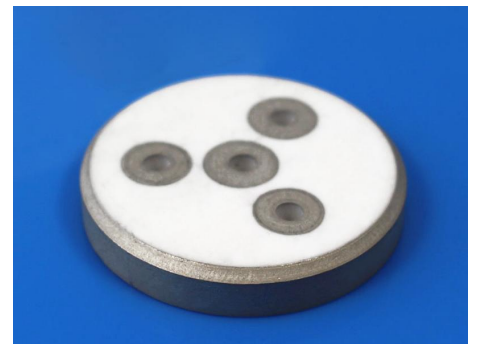
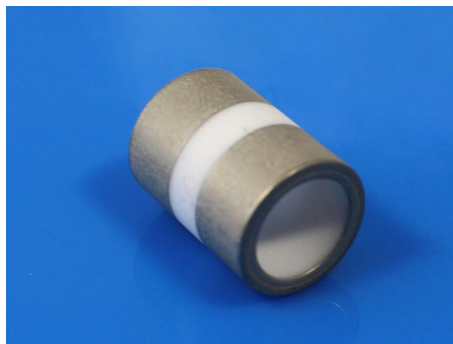
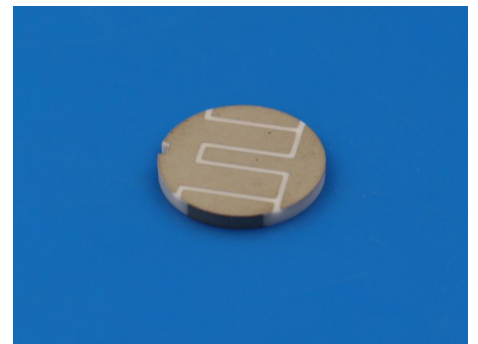
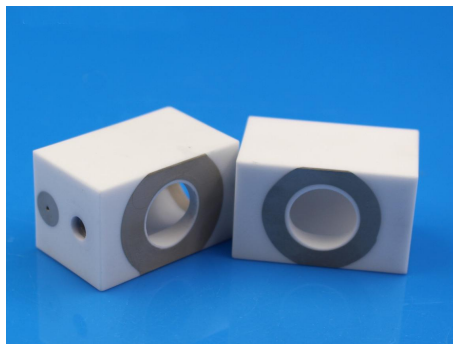
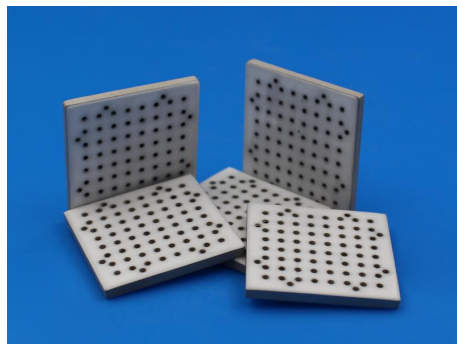
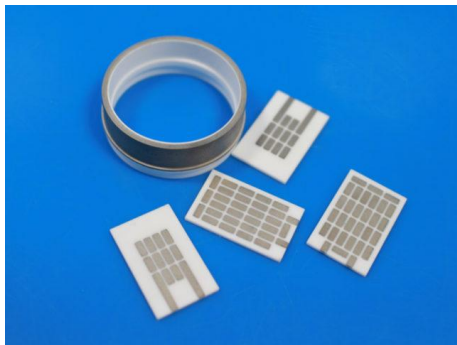
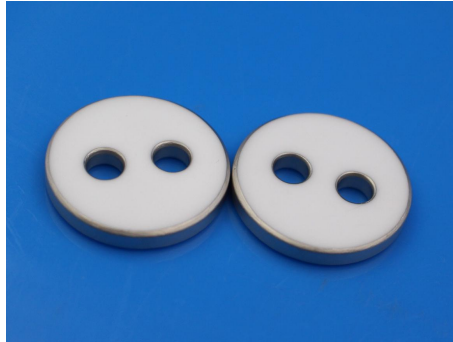
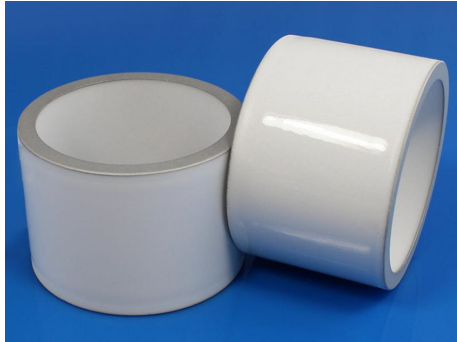


## ■ Typical Ceramic Composition

95%, 99% Alumina Ceramic Components

AlN Ceramic Substrate

BeO Ceramic Substrate







# INNOVACERA

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