

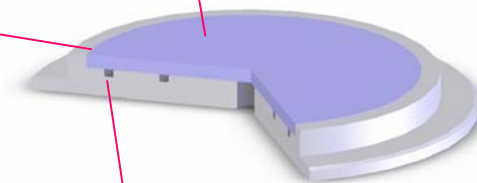
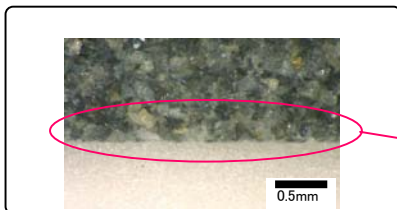
Porous Chuck

◎Monolithic structure of porous and retainer
Nihon Ceramic developed unique technique manufacturing monolithic structure of porous ceramic and retaining body. This enables ultimate

◎Various available option

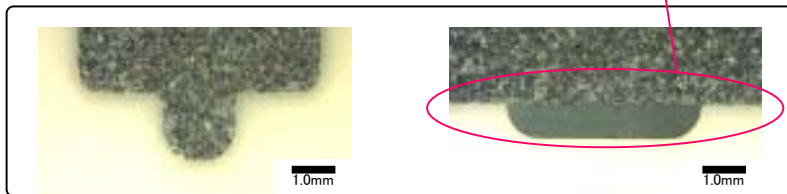
The following material, pore size and porosity are available

- Material : Al_2O_3 , SiC
- Pore size: 5 , 10 , 30 , 70 μ m
- Porosity: 30 ~ 60%



◎Design flexible

Both square and circle design are available.
Any inside tunnel pattern is available.



Bonding strength between porous ceramics and retaining body is more than mechanical strength of porous ceramics.

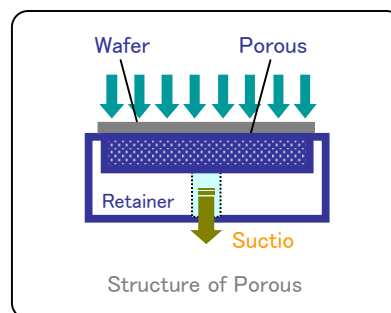
【Characteristics】

| Material | Al ₂ O ₃ | | SiC | |
|--|--------------------------------|----------------------|----------------------|----------------------|
| | Porous | Retainer | Porous | Retainer |
| Specific gravity | 2.5 | 3.9 | 2.1 | 3.1 |
| Bending Strength (MPa) | 50 | 450 | 50 | 500 |
| Young's modulus (GPa) | 55 | 390 | 55 | 410 |
| CTE (/°C) | 7.4×10^{-6} | 7.3×10^{-6} | 4.7×10^{-6} | 4.6×10^{-6} |
| Thermal Conductivity (W / m· | — | 30 | — | 150 |
| Volume Resistivity ($\Omega \cdot$ cm) | 10^{11} | $> 10^{14}$ | 10^6 | 10^6 |

【Application】

- Fixture of grinding Si Wafer
(Dicing saw, Grinder, Polisher)
- Glass substrate carrier for LCD
- Fixture for various test equipment
- Fixing film sheet or metal substrate

【Example】



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