

Product Samples

ATP1005: BeO Submount – Thermal Solderable

Applied Thin-Film Products (ATP) is pleased to provide ceramic thin-film samples for your evaluation.

TiW/Pd/Au is a solderable metalization on Beryllium Oxide (BeO). Since BeO has a thermal conductivity of 270 Watts/mK and is ideal for the toughest thermal applications.

ATP1005: Material is 15 mil BeO
 TiW = 400–800 Ångströms
 Pd = 1000–1500 Ångströms
 Au = 120µ" minimum

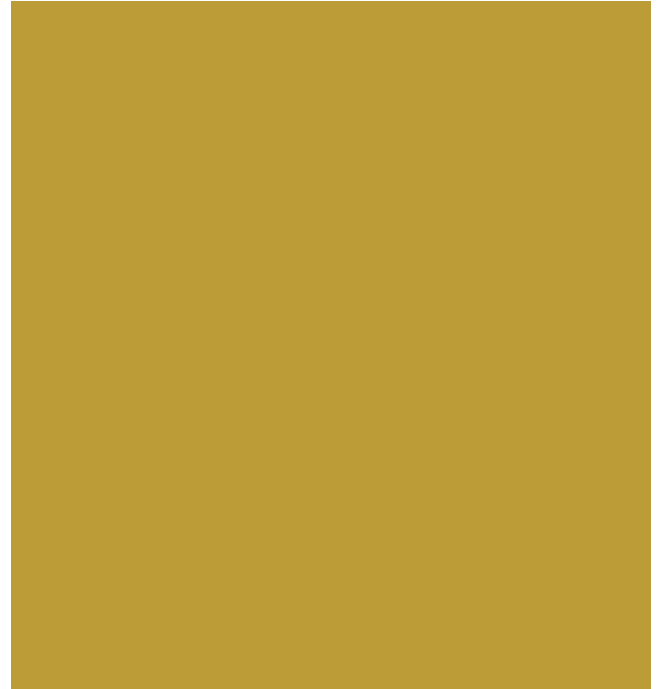
Material Specifications

Beryllium Oxide

| Properties | Values |
|--|--|
| Chemical Composition | AlN |
| Purity | 99.5% |
| Color | White |
| Nominal Density | 2.85g/cm |
| Surface Finish (Polished) | 2.0–4.0µ" (50.0–100.0nm) |
| Coefficient of Thermal Expansion (CTE) | 9.0 x 10 ⁻⁶ (25–1000°C) |
| Camber | 0.0003"/0.0005" (7.6/12.7µm) |
| Thickness | 0.015" (0.381mm) |
| Thickness Tolerance (±) | 0.0005" (12.7µm) |
| Thermal Conductivity | 270 Watts/m ² K |
| Dielectric Constant 1 MHz | 6.5 @ 1 MHz |
| Dissipation Factor (Loss Tangent) | 0.0004 @ 1 MHz |
| Flexural Strength | 35K (10 ⁻³) lbs/in ² (4 pt. bend) |
| Grain Size | 9–16µm |

Material Specifications provided by Accumet Engineering Company

Sample Provided



ATP offers build-to-print service for a wide range of materials and metalization schemes. ATP fabricates circuits on substrates from As-Fired Alumina to Beryllium Oxide to Fused Silica, even Silicon. Metalizations range from the standard Tan/TiW/Au to films including Nickel, Palladium, or Titanium.

At ATP, we constantly evolve our processing and material capabilities to reflect our customer's changing needs. If you have a circuit requirement that is out of the "normal" thin-film type, please contact ATP at 1.510.661.4287 or visit our website at www.thinfilm.com. ATP would enjoy discussing your application with you and working to develop a solution.