

C12 POROUS MAGNESIA PLATE Product PLT-MG994-POR1



C12 Porous Magnesia Plates are ideal for sintering solid oxide fuel cells (SOFC), electrolyte substrates, orthopedic or dental ceramics, and for debinding and sintering metal injection molded (MIM) components. In addition to keeping parts flat and distortion-free, C12 Porous Magnesia Plates provide a smooth, non-reactive porous surface that prevents sticking and cracking. C12 Porous Magnesia Plates are highly planar, and have a porosity of about 38% which permits gasses that evolve during sintering to pass easily through the plate. Composed of high purity (99.4%) magnesium oxide, C12 Porous Magnesia Plates remain inert and non-reactive at high temperatures where other materials fail. Due to the fact that MgO has a melting temperature which is significantly higher than any other common oxide ceramic (>3100 K), C12 Porous Magnesia Plates resist warping better than standard alumina plates, and typically have a longer service life. C12 Porous Magnesia Plates can be used in conjunction with C12 Separator Powder Sheets (SPS) to help prevent sticking and damaging delicate green parts.

Advantages and Applications

- Prevents sticking, cracking and "setter drag" problems.
- Resists warping, better mechanical strength than standard porous alumina plates.
- Higher service temperatures (over 1600°C), and longer service life.
- Provides non-reactive, high temperature support where other materials fail.
- Highly planar, dust-free, particle-free surface.
- Remains electrically insulating at high temperatures.
- Plates can be easily cut to size with laser or waterjet.
- Better thermal shock resistance than alumina.