ELECTROLYTE TAPE

High Temperature 8 mol% YSZ Tape for use in SOFC and other Fuel Cells, Gas Sensors and Pressure Sensors

The ESL42400 is an 8 mol% yttria stabilized zirconia (YSZ) ceramic layer prepared by casting on a polyester carrier film, which is coated with a release agent.

Typical applications for this tape are fabrication of SOFC and other fuel cells, high-temperature ceramic gas sensors and pressure sensors. In these applications, this electrolyte is designed to be an excellent ionic conductor and a poor electronic conductor at operating temperatures.

STABILIZING AGENT: 8 mol% Y_2O_3
GREEN TAPE THICKNESS: 15 µm ± 5 µm
GREEN TAPE COLOR: off-white
LAMINATING: 21 MPa @ 70°C
TYPICAL SINTERING CYCLE:
0.7°C/minute ramp to 650°C
2.5°C/minute ramp to 1450 to 1550°C
2-hour soak at peak temperature to achieve full density
Fired Density: (1450°C for 30 minutes) > 98% of theoretical
**CAUTION:** Proper industrial safety precautions should be exercised in using these products. Use with adequate ventilation. Avoid prolonged contact with skin or inhalation of any vapors emitted during use or heating of these compositions. The use of safety eye goggles, gloves or hand protection creams is recommended. Wash hands or skin thoroughly with soap and water after using these products. Do not eat or smoke in areas where these materials are used. Refer to appropriate MSDS sheet.

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