

Ceramic processing *and slurries for tape casting*

Fiaxell provides «ready to cast» slurries or separate ingredients to prepare the formulations. The components needed to formulate the slurries such as powders, dispersing agent, polymers and viscosity modifier are proposed for two types of slurries:

Water based slurries

- No hazardous vapor or offensive smell
- Simple cleaning of equipment with water
- Possibility of casting directly on glass
- Adjustable viscosity
- Tape with water solubility or not
- Specialty from Fiaxell



*Left: 8YSZ powders and 8YSZ balls for ball milling
Right: Slurry degassing thanks to a water Venturi pump*

Organic based slurries

- High wettability
- Fast or slow drying
- Tape with water solubility or not
- Easy degassing

Slurry preparation, lab equipment and consumables



Ball milling equipment for dispersing the powders in aqueous and organic slurries.

- Solvents and dispersing agents for water and organic slurries
- Anode and electrolyte powders as NiO, 3YSZ, 8YSZ, etc.
- Binders and plasticizers for water and organic slurries
- Grinding media, YSZ balls
- Roll mill with variable speed
- Tiles for sintering, 8YSZ coated or special coating on request
- Miscellaneous labware

Sintering

Sintering is a delicate step in the cell production process, which requires know how and high quality equipment. Fiaxell, with more than 10 years of experience, offers quality components to succeed in producing flat and unbroken cells.

Components and equipment for sintering:

- Muffle furnace till 1400°C or higher temperatures
- Sintering tiles with 8YSZ as standard coating or special material on request
- SiC plates and ceramic spacers for floor stacking
- Coarse 10YSZ powders for cell slipping on tiles during the sintering



Muffle furnace of 150 liters for cell sintering until 1400°C