

## Technical datasheet

# KEKO fine Aluminium oxide Separator Tape- fAST

KEKO fine Alumina Separator Tape – fAST tape is a ceramic tape of very pure alumina usable as a separator tape for firing different pieces of alumina, LTCC and other technical ceramics. It prevents reaction with setter. The tape can also be used as a tape for production of 99,9 % alumina multilayer structures.

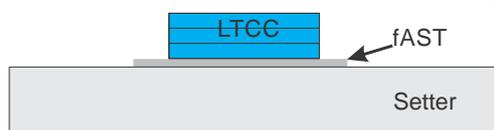
KEKO fAST tape is available in standard thicknesses 100 µm. Other thicknesses as well as alumina powder for custom tape casting are available by request.

### Size:

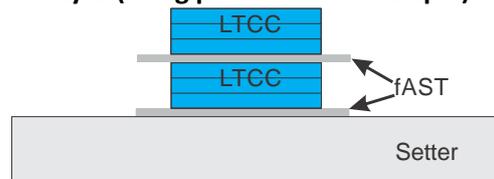
8"× 8", rolls and sheets with other dimensions available by request up to the width of 10".

### Applications

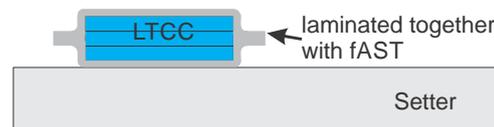
#### - separator tape (firing profile for the sample)



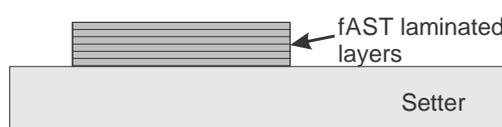
#### - barrier layer (firing profile for the sample)



#### - shrinkage prevention layer (firing profile for the sample)



#### - as a layer for production of pure alumina multilayers (firing profile as described in this datasheet)



### Advantages

- prevents reaction with the setters
- prevent possible contamination from furnace
- prevent change in the ceramic composition during firing
- when laminated with LTCC it prevents x and y shrinkage, shrinkage less than 5 %.
- used as a pure alumina tape for production of pure alumina multilayer

### Typical processing procedure for KEKO fAST Tape

- For use as a separator tape just put fAST tape between the setter and the sample.
- For use as a barrier layer just put fAST tape between the samples.
- For use as a shrinkage prevention layer just laminate or stack the fAST tape at the top and bottom.
- For use as a layer for production of pure alumina multilayers, just laminate or stack layers together and fire.

**Lamination:** 21MPa (3000 PSI) at 60°C, 10 minutes (pre-heating 5 min)

### Firing:

- **Burnout:** 450 °C for 1hrs ≤ 7°C/min, ramp to 450°C, air atmosphere
- **Sintering:** 1600 °C peak for ≥ 300 minutes, Ramp to peak temperature ≤ 5°C/min, cooling rate ≤ 10°C/min.

**Setters:** Alumina, porous alumina, fused quartz

### Cutting:

Cutting single or multilayers with a hot knife or a Nd:YAG laser cutter in an unfired state. After firing use the diamond saw or a laser scribe (not recommended for finer cuts)

### Storage:

Store the tape roles or the green sheet boxes in a closed package at room temperature in clean environment. Avoid direct sunlight or other source of heat radiation. The shelf life of unopened package is 6 months.