

# フォトレジストフィルムをレプリカとして用いたエンボス状 LTCC電極-絶縁体界面の形成

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Formation of Emboss Patterned Interface between Electrode and Insulator in LTCC Applying Photo Resist Film as Replica

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## Abstract

An emboss patterned interface was formed between an electrode and an insulator in LTCC (Low Temperature Cofired Ceramics). Preparing a resist film on which a micro pattern had already been formed, and inserting the resist film between a release film and specimen slurry during the green sheet formation process, the emboss pattern was produced on the green sheet. This formation was applied to a silver conducting sheet, and the silver sheet showed excellent emboss formation. Making use of the obtained embossed silver sheet, emboss interface patterns were formed between the electrode and the insulator by coating glass ceramic slurry on the embossed structure. The embossed line was 30  $\mu\text{m}$  and the height was 25  $\mu\text{m}$ . Realizing this kind of fine embossed structure is quite difficult using only conventional formation methods. Also, this embossed microstructure is expected to have applications for filters or other devices that require complicated electrical interfaces.

**Key Words:** LTCC, Pattern, Emboss, Interface, Resist Film