



磁性生瓷带

40011

MAGNETIC TAPE

低温烧结生瓷带用于高磁导率的多层和高频应用
Lo-Fire Tape for Multilayer and High Frequency Applications
Requiring High Permeability

ESL40011是由分散在有机基体里的磁性粉末而形成的弹性挤塑薄膜。在885°C下烧结形成致密体。多层部件可由数张金属化的生瓷带在烧结前经过层叠而形成的一个整体结构。在温度为70°C、压强为10.5MPa的条件下，层叠此生瓷带，效果最好。该产品被定型在硅涂层聚酯薄膜上，以减小环境污染，防止其受到机械损伤，且便于操作处理。此生瓷带用于高磁导率的高频应用中。

ESL 40011 is a flexible cast film of magnetic powder dispersed in an organic matrix. It is designed to be fired at 885°C to give a dense body. Multilayer parts can be formed by laminating metallized sheets of the tape into a monolithic structure prior to firing. A pressure/temperature combination of 10.5 MPa and 70°C works well for laminating this tape. Magnetic tape is provided on a silicone-coated polyester film to minimize environmental contamination, to protect it from mechanical damage, and to aid in handling. This material is useful in high frequency applications that require high permeability.

工艺参数 PROCESSING PARAMETERS

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|--------------------------------|-----------------------------|
| 层叠条件 LAMINATING: | 10.3 MPa (1500 psi) at 70°C |
| 烧结温度 FIRING TEMPERATURE: | 900±15 °C |
| 峰值时间 TIME AT PEAK TEMPERATURE: | 2-3 小时 |

瓷带特征 TAPE CHARACTERISTICS

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|----------------------|--------------------------|
| 瓷带厚度 TAPE THICKNESS: | 65-75 μm(2.6 – 3.0 mils) |
| 颜色 COLOR: brown | 褐色 |
| 保质期 SHELF LIFE: | 12 个月 |

烧结瓷带特性 FIRED TAPE PROPERTIES (Using co-fired ESL 903-A silver conductor)

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|---|------------------------------------|
| 磁导率 PERMEABILITY:(100 KHz) | ≥ 200 |
| 绝缘电阻 INSULATION RESISTANCE: (100 VDC) | ≥ 10 ⁸ Ω |
| 热膨胀系数 THERMAL COEFFICIENT OF EXPANSION: (25°C to 300°C) | 9.4 ppm/°C |
| 击穿电压 BREAKDOWN VOLTAGE: | > 1000 VDC/25 μm |
| 烧结收缩率 FIRED SHRINKAGE:(Using recommended processing parameters) | X and Y 18.0%±1.0% Z 18.0%±1.0% |
| 烧结密度 FIRED DENSITY:(Theoretical) | 5.30 g/cm ³ |
| 兼容的导体浆料 COMPATIBLE CONDUCTORS: | ESL 903-A, 903-B, 902 |