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CO-FIRE CERAMIC TAPE 41060

Lead-Free Ceramic Fire Tape for Multilayer and Microwave Applications Requiring Dielectric Constant of 16-17

The 41060 is a flexible cast film of inorganic dielectric powder dispersed in an organic matrix, designed to be fired at 875°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 21 MPa and 70°C works well for laminating this tape. Ceramic 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 dielectric is useful in microwave applications that require intermediate dielectric constant and low loss.

PROCESSING PARAMETERS

LAMINATING:	21 MPa at 70°C
FIRING TEMPERATURE:	875°C
TIME AT PEAK TEMPERATURE:	30 minutes

TAPE CHARACTERISTICS

TAPE THICKNESS:	100-130 µm
COLOR:	blue
SHELF LIFE:	6 months

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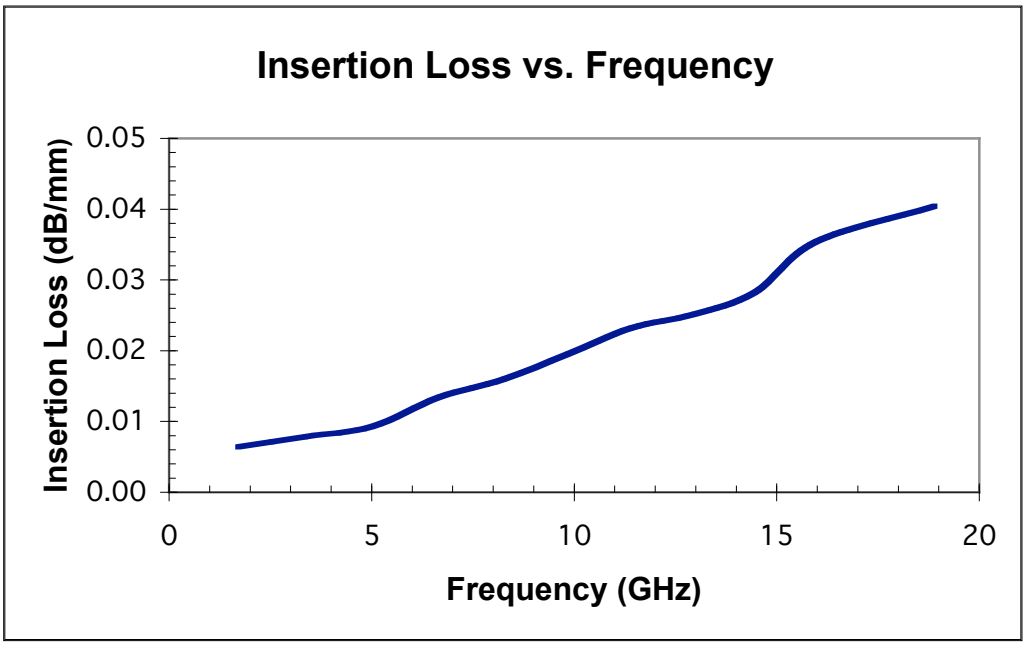
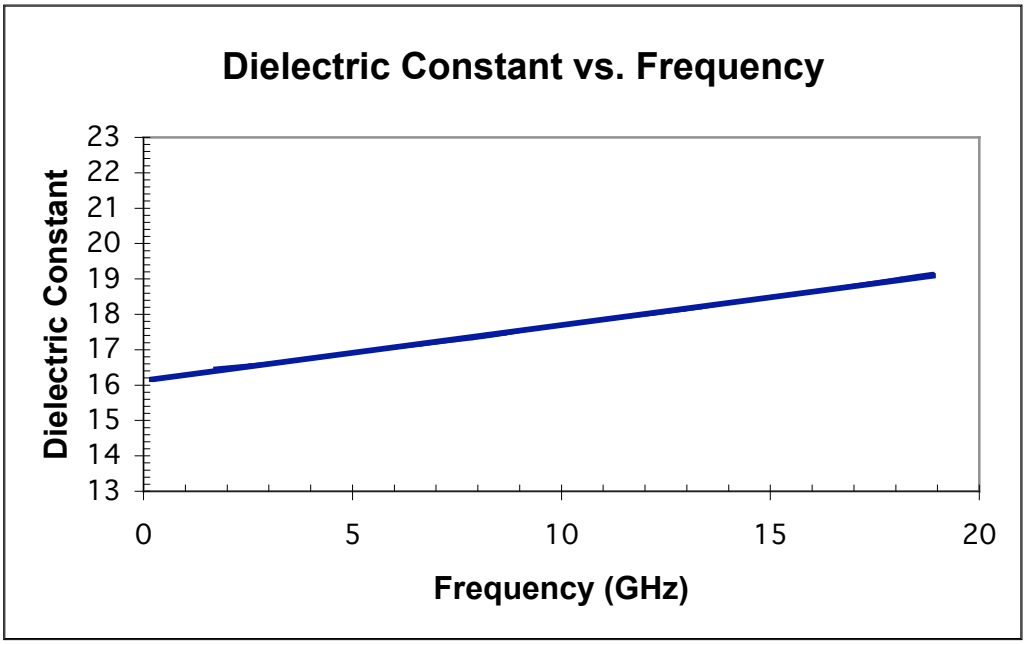
See Caution and Disclaimer on other side

FIRED TAPE PROPERTIES (Using co-fired 903-A silver conductor)

DIELECTRIC CONSTANT: (1 MHz)		16-17
DISSIPATION FACTOR: (1 MHz)		0.2%
TCE: (25°C to 300°C)		7.55 ppm/°C
FIRED SHRINKAGE: (Using recommended processing parameters)	X and Y	9.5%±0.5%
	Z	15.0%±1.0%
FIRED DENSITY: (Theoretical)		3.46 g/cm^3
COMPATIBLE CONDUCTORS:		903-A

MICROWAVE PROPERTIES





* - Data obtained from measurements on ring resonators. Metallization is co- fired 903-A silver.