



ESL Electro-Science

416 East Church Road • King of Prussia, PA 19406-2625, USA
610-272-8000 • Fax: 610-272-6759 • www.ElectroScience.com • Sales@ElectroScience.com

MAGNETIC TAPE

40010

Lo-Fire Tape for Multilayer and High Frequency Applications Requiring Medium Permeability

ESL 40010 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.

PROCESSING PARAMETERS

LAMINATING:	10.5 MPa at 70°C
FIRING TEMPERATURE:	885°C
TIME AT PEAK TEMPERATURE:	180 minutes

TAPE CHARACTERISTICS

TAPE THICKNESS:	65-75 µm
COLOR:	brown
SHELF LIFE:	6 months

40010 0402 Rev B

ESL Affiliates

ESL China • Rm#1707, Tower A • City Center of Shanghai • 100 Zunyi Road • Shanghai, China 200051 Tel: (011-86)-21-62370336 • Fax: (011-86)-21-62370338 • eslchina@guomai.sh.cn

ESL Europe • 8 Commercial Road • Reading, Berkshire, England RG2 0QZ • Tel: (011-44)-118-918-2400 • Fax: (011-44)-118-986-7331 • Sales@ESLEurope.co.uk

ESL NIPPON • Sukegawa Bldg • 6th floor • 3-4 Yanagibashi 1-chome • Taito-ku • Tokyo 111, Japan • Tel: (011-81)-3-3864-8521 • Fax: (011-81)-3-3864-9270 • NipponSales@ESLNippon.com

See Caution and Disclaimer on other side

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

PERMEABILITY:

(100 KHz) ≥ 60

INSULATION RESISTANCE:

(100 VDC) ≥ 10⁸ Ω

BREAKDOWN VOLTAGE:

> 1000 V/25 μm

FIRED SHRINKAGE:

(Using recommended processing parameters)

X and Y

17.0%±1.0%

Z

14.0%±1.0%

FIRED DENSITY:

(Theoretical)

5.40 g/cm³

COMPATIBLE CONDUCTORS:

ESL 903-A, 903-B, 902

40010 0402 Rev B

CAUTION: Proper industrial safety precautions should be exercised in using these products. Use with adequate ventilation. Avoid prolonged contact with skin or inhalation of any vapors emitted during use or heating of these compositions. The use of safety eye goggles, gloves or hand protection creams is recommended. Wash hands or skin thoroughly with soap and water after using these products. Do not eat or smoke in areas where these materials are used. Refer to appropriate MSDS sheet.

DISCLAIMER: The product information and recommendations contained herein are based on data obtained by tests we believe to be accurate, but the accuracy and completeness thereof is not guaranteed. No warranty is expressed or implied regarding the accuracy of these data, the results obtained from the use hereof, or that any such use will not infringe any patent. Electro-Science assumes no liability for any injury, loss, or damage, direct or consequential arising out of its use by others. This information is furnished upon the condition that the person receiving it shall make their own tests to determine the suitability thereof for their particular use, before using it. User assumes all risk and liability whatsoever in connection with their intended use. Electro-Science's only obligation shall be to replace such quantity of the product proved defective.
