

Forensic Examination and Comparison of Pressure Sensitive Tapes



WHAT IS AN AAFS STANDARD FACTSHEET?

The AAFS produces clear, concise, and easy to understand factsheets to summarize the contents of technical and professional forensic science standards on the OSAC Registry. They are not intended to provide an interpretation for any portion of a published standard.

WHAT IS THE PURPOSE OF THIS STANDARD?

This guide is intended as an introduction for the forensic examination of tapes with tacky adhesive on one or both sides (i.e., pressure sensitive adhesive tape). It is intended to assist individuals who conduct forensic tape analyses in their evaluation, selection, and application of tests during their examination. This standard provides an overview and guidance on the strengths and limitations of various techniques used in the analysis and comparison of pressure sensitive adhesive tapes.

This guide describes the construction and classification of various tapes and the methods to develop discriminatory information using an efficient order through flowcharts outlining the minimum analytical scheme for tape comparison, tape backing analysis, and reinforcing materials.

WHY IS THIS STANDARD IMPORTANT? WHAT ARE ITS BENEFITS?

Adherence to the standard provides a consistent approach to forensic tape analysis.

The standard is intended to assist the examiner in characterizing and comparing evidentiary tape samples. The forensic examination of tape encompasses the determination of physical construction and chemical composition of tape products. General information on product variability, construction, and composition is provided.

Forensic science service providers (FSSPs) that provide trace evidence services are encouraged to meet this standard.



HOW IS THIS STANDARD USED AND WHAT ARE THE KEY ELEMENTS?

The analysis and comparison of tape evidence in the FSSP can provide valuable information due to the variability of tape products. However, some classes of tape exhibit more variability between sources than others. In general, the more complex the product (e.g., duct tape), the more features it has for comparison, lending itself to higher discrimination.

The standard guide provides an overview of techniques applied to the forensic analysis of tape components by selecting and organizing an analytical scheme for the analysis, comparison, and identification of tapes. Requirements for analytical testing of pressure sensitive tapes include considerations associated with each step in the process: sample handling, tape construction, testing procedures and analytical schemes, and instrumental analysis techniques.

Other associated ASTM standards and SWGMAT guides are offered in the guide along with an extensive list of references. A forensic science service provider can use this guide and other provided references for incorporation of the testing of pressure sensitive tape into their quality system program.

This is a standard guide. Additional tests beyond those required in the standard guide may be necessary.