

MICROVACUUM / DUST SAMPLING FOR ASBESTOS FIBERS
(ASTM D5755-95 & ASTM D6480-99)

Asbestos dust sampling using micro vacuum and/or surface wipe techniques has been an issue of debate among industry experts and scientists due some limitations of these procedures. The major issues for acceptance have been the lack of precision and the variability of results based on sampling collection methods and types of surfaces sampled.

The method specifically stated to "one or more large asbestos-containing particles dispersed during sample preparation may result in large asbestos concentration results...". This is drawback for sample collection. The test method therefore required the collection of multiple independent samples from the same area. Quality control for analysis was based on reanalysis of the same samples due to difficulty in preparing quantitative asbestos samples.

The test method did not describe procedures or techniques required to evaluate the safety or habitability of buildings and did not set a standard or guidance for interpretation of the results. This method has not been adopted by any State or local regulatory agency.

A single direct relationship between asbestos-containing dust and potential human exposure has not been established.

The circulation of air in conjunction with air sampling provides direct information on potential exposure. Asbestos is primarily an inhalation hazard that has been associated with lung cancer, mesothelioma, and asbestosis.

Clearance air monitoring following an asbestos removal project requires the use of forced air equipment to re-entrain settled asbestos fiber and the collection of air samples during air circulation procedures. This methodology provides a direct evaluation of cleaning activities and has promulgated clearance criteria.

Individuals are trained and certified for collection of air and bulk samples. The training and certification requirements include units on hazard assessment, selection of sampling locations, and proper sample collection of air and bulk materials. Individuals are not uniformly trained or certified for collection of asbestos dust samples.

- ① no correlation between Asbestos in dust and what becomes airborne
- ② limitations on the methodology on wipe samples thus no Adoption by any govt agency to adopt these standards