Still finding new ACMs after all these years

After 30 years of asbestos surveying, I thought that not much could surprise me. I consider I have an up to date knowledge of a huge range of materials into which asbestos fibres have been added, creating a myriad of asbestos containing materials (ACMs). Keeping current, often new items found by fellow Occupational Hygienists are posting on peer group forums, which usually create a flurry of similar acknowledgments.



What was concerning about my latest find is, it didn't present at all as akin to other ACMs in my knowledge base, and a cursory inspection would have lead to the material being misrepresented as a nonasbestos acoustic felt.



An example of peer group forum

As an example of peer group forum, variation on a theme; last month an close associate of mine found an old toaster with a millboard/paper lining. A variation on the catering style kitchen appliances, such as deep fat friers or steriliser units.

As can be appreciated from the adjacent photographs, the surveyor found an ancient toaster, from an era where asbestos was commonly used as a thermal insulation. With the inquisative nature of an exemplary surveyor, further investigation lead to the discovery the 100% Chrysotile lining. My concerning find, was as a result of an R&D asbestos survey. The find was above a 3m high suspended ceiling. As an aside, the suspect material only covered approximately ¹/₈th of the ground floor ceiling. Which is a good case in point as to why it is important to inspect ceiling voids in many locations.





Once located, visually close-up, the material looked like an acoustic tile with a linen/cloth backing. On initial physical inspection, the material had compressed under hand similar to a fiberglass matting, but without the well known fibre crushing sound.





Above Left

Linnen/Cloth backing approximately 10cm x 10cm cut and carefully removed.

Above Right

Visually the material looked like an acoustic matting, simiar to that found around vehicle engine compartments and under car carpets. Initially thinking that the material could be backed with Chrysotile paper, similar to the medium density fibreboard ceiling tiles, a full thickness cut was made through the material.

Left

As the 'felt' was carefully prised out, dispersed throughout the majority black nylon type fibres were clumps of white serpentine fibre, which warranted further investigation.



Above

Painted back surface, it was not clear from this sample point how the materal was attached to the ceiling.

Left

The edges are held in place with a metal trim. The material was very light, one suggestion is that it is thought to be held to the strucutral ceiling with double sided adhesive tape in a grid pattern.



Clump of Chrysotile fibres indicated with the arrow.

Not all white fibres were Chrystile, it is approximated to be less than 1% asbestos. Other white fibres were similar to the organic fibres found in supalux.



Under 8x magnification the Chrysotile fibres are more obvious.

8x magnification 1cm scale at 0.1mm intervals, i.e between 0 and 1 is 1mm



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