

Personal Monitoring Benchmark Data

ACAD, the not for profit trade association leading the Asbestos sector, conceived and created the idea of collating and publishing reference values for personal monitoring to provide all Licence Holders with industry benchmark figures they can compare their own data against.

This initial report focuses on the average fibre concentrations for a range of typical activities undertaken on the Licensable materials and also for the removal of some non-licensable materials.

Background

All Licence holders are required to obtain personal monitoring data which is used to confirm the suitability of RPE and also to allow individual exposures for different types of work to be estimated as accurately as possible.

ACAD's guide to personal monitoring published last year explains how a LARC can build on this essential task to compile meaningful PM figures for different activities such as nailed AIB removal, abrasive blasting of residual debris following manual cleaning techniques, AIB ceiling tile removal, AIB fine cleaning, bag runs etc...

However up until now Licence holders have only ever been able to compare their own figures against likely fibre concentrations printed in HSE publications. For example the Licensed Contractors Guide, HSG247, details good practice values for the careful removal of whole AIB as those generating up to 3 f/ml whereas the average fibre concentrations calculated in this benchmark data for the same activity is more than an order of magnitude lower at just 0.098 fcm⁻³.

Information supplied

ACAD's thanks goes to all those Licence holders, ACAD members and non-members alike, who have kindly shared their anonymised data for the benefit of the sector as a whole. ACAD will continue to compile and share this data at least twice annually. Licence Holders are encouraged to make contact with ACAD to arrange to share their data to inform future benchmark data.

Please note, all fibre concentrations are measured in fcm^{-3} and utilise values up to 3 decimal places provided to ACAD up to end of May 2018. Given the varying terminology, variety of results and level of detail of information supplied, ACAD has taken a view on the entire dataset without discrimination or standardisation of sample sizes and provides these averages for usage as an external benchmark reference figures only.

Please also note that fewer numbers of samples for a particular activity indicate higher uncertainty in the average and maximum values reported, in particular those results for Asbestos Coating and the non-licensable materials.

How to use the ACAD PM benchmark figures

Where a LARC's values are significantly higher than the industry average, the reasons for this should be investigated with a view to lowering an employer's exposure profile. Where values are on a par or lower than average this can usually be taken as a positive indicator that a LARC is successfully minimising exposure to asbestos however this needs to be balanced against the type of work the licence holder carries out and care must be taken to avoid a complacent attitude to exposure risk.

If you have any queries, require any advice on personal monitoring or want to be involved and help support this ongoing project contact ACAD, the organisation leading the Asbestos sector.

Fibre Concentrations Summary Table

ACM	Activity	Maximum (fcm ⁻³)	Average (fcm ⁻³)	No. samples	Average Volume (litres)*	Average number of Fields*
AIB	All activities	2.366	0.089	442	116	163
	Set up/Dismantling	0.285	0.028	26	170	159
	Encapsulation	2.366	0.114	89	77	166
	Removal – All	1.900	0.098	255	129	163
	Removal – Nailed	0.517	0.105	53	146	160
	Removal – Screwed	1.900	0.311	21	110	143
	Cleaning	0.400	0.060	45	118	163
Asbestos Insulation	All activities	0.198	0.035	311	126	186
	Set up/Dismantling	0.040	0.020	24	140	200
	Encapsulation	0.100	0.030	58	168	224
	Removal	0.198	0.037	153	120	154
	Cleaning	0.170	0.038	36	81	120
Asbestos Coating	All activities	4.080	0.425	75	74	138
	Encapsulation	0.121	0.052	17	53	150
	Bagging	2.900	0.835	10	51	Not reported
	Removal	0.270	0.061	11	137	100
	Cleaning	2.470	0.481	27	82	Not reported
Asbestos Cement – Removal		0.074	0.021	24	133	167
Textured Decorative Coating – Removal		0.040	0.016	14	102	175
Vinyl Floor Tiles – Removal		0.080	0.034	13	105	200

* Not all fibre concentration samples reported number of fields and volume. The averages reported are calculated from those samples where this was reported only.