



**Group Report**  
**Round 78**  
**March 2023**



Asbestos In Materials Scheme

# Asbestos In Materials (AIMS) Scheme

This report is available to view on our website: <https://www.hsl.gov.uk/proficiency-testing-schemes/group-reports>

## Round 78 Sample Details

385 labs were assigned to Round 78 with 363 laboratories submitting complete results. All samples were prepared for circulation following our normal internal screening process and were scanned using stereozoom microscopy to assess homogeneity and suitability. Approximately 10% of all samples prepared were validated by 18 independent laboratories using either PLM or SEM analytical techniques.

The round consisted of two manufactured samples and two commercial samples of materials that may contain asbestos and would typically be submitted for analysis at an asbestos testing laboratory. Sample 1 was a manufactured sepiolite cat litter sample containing 0.2% crocidolite asbestos and 0.2% chrysotile asbestos; Sample 2 was a commercial string sample containing chrysotile asbestos; Sample 3 was a commercial gasket sample containing chrysotile asbestos and Sample 4 was a manufactured painted plasterboard sample containing leather fibre within the white paint layer.

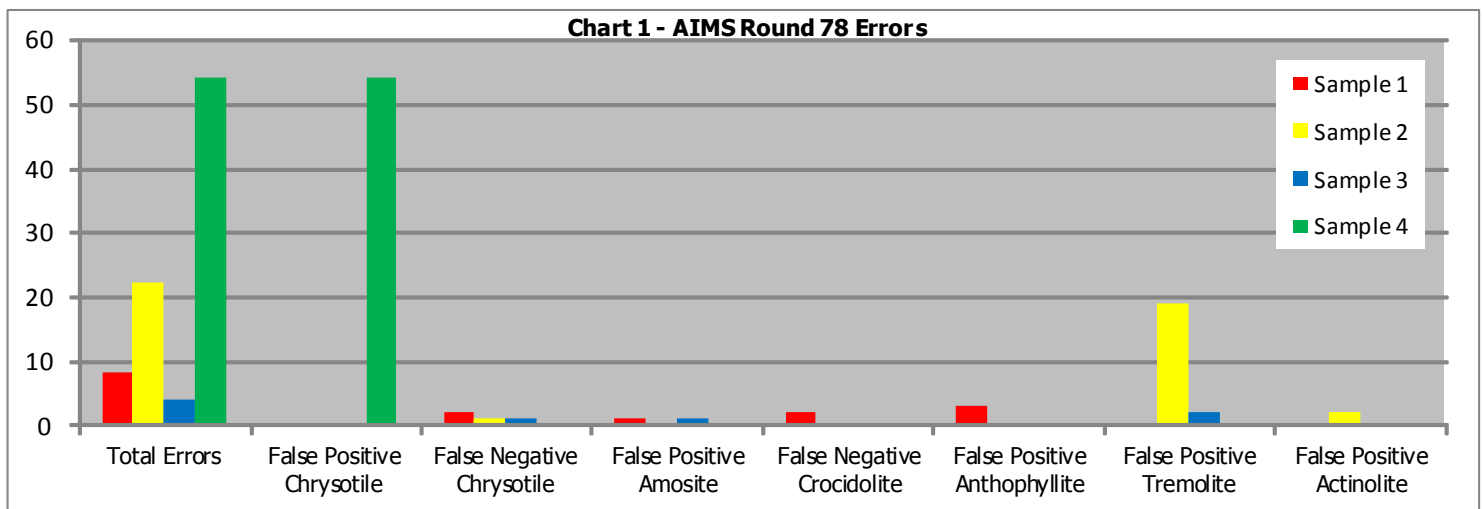
A number of errors occurred on Samples 2 and 4. On Sample 2 several labs reported tremolite or actinolite being present within the commercial chrysotile string sample. The largest number of errors occurred on Sample 4 with analysts misidentifying the leather fibre in the paint layer as chrysotile. As listed in paragraph A2.62 of HSG248 Asbestos: The Analysts' Guide there are a few observations and techniques that can be used to differentiate leather from chrysotile. "At low magnification (100x) leather will usually have clearly visible uniform fibrils, whereas chrysotile fibrils are too small to be seen by PLM, hence the non-uniformity of the fibre bundles. Leather swarf mounted in RI liquid 1.550 is readily visible in plane polarised light because it is not completely transparent, whereas chrysotile similarly mounted would be barely visible. In most instances the differences between leather and chrysotile can be detected during examination with the stereo-microscope. If leather is suspected as being present then the sample can be ashed at 400°C."

Sample	Validation Number	Product Type	Target Component	Asbestos Present (%)	Other Added Fibres Present
1	333	Cat Litter (Manufactured)	Crocidolite & Chrysotile	0.2% (of each asbestos type)	None
2	334	String (Commercial)	Chrysotile	Unknown	Unknown
3	335	Gasket (Commercial)	Chrysotile	Unknown	Unknown
4	336	Board (Manufactured)	No Asbestos	N/A	Leather fibres



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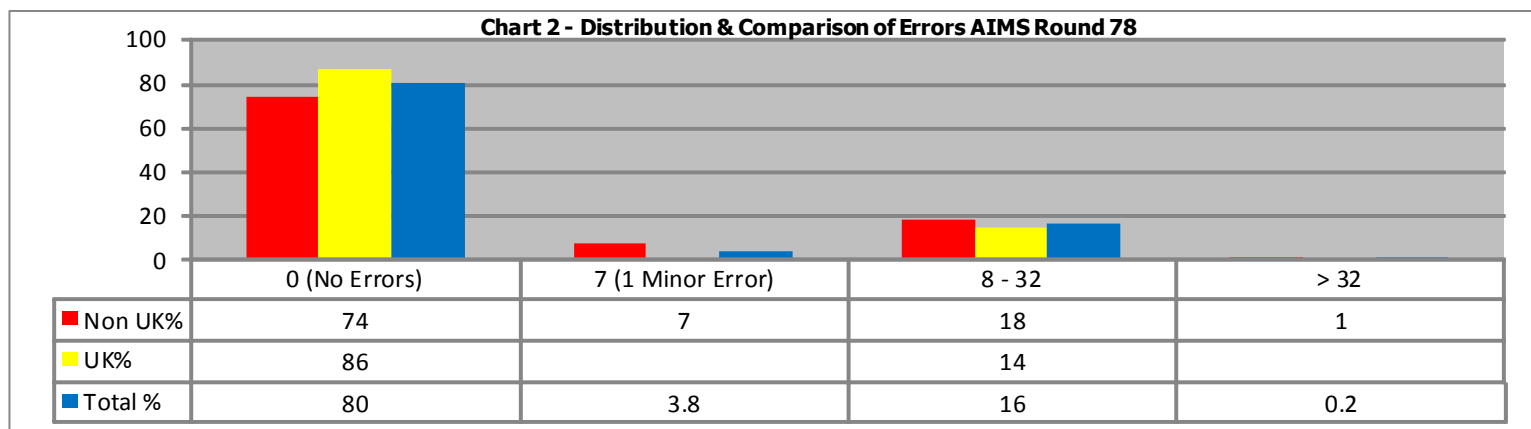
## 1. Type Of Errors Obtained



False Negative = Component has been missed. False Positive = Component has been incorrectly identified as present.

## 2. Round Scores

Chart 2 illustrates the distribution of scores for all participating laboratories. 289 (80%) laboratories obtained a score of zero in this round, indicating that these laboratories had not made any errors. The distribution of scores obtained by UK (United Kingdom) and Non-UK laboratories is also compared; 138 (86%) UK laboratories and 151 (74%) Non-UK laboratories obtained a score of zero for the round.





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Chart 3 shows the percentage distribution of cumulative three round scores for all UK and Non-UK laboratories. 19 laboratories (5%) in total had not yet completed 3 rounds and therefore did not accumulate a score. Following this round, 263 laboratories (68%) obtained a good cumulative score (0 – 7 penalty points cumulatively). 88 laboratories (23%) obtained an acceptable cumulative score (8 – 32 penalty points cumulatively) and 15 laboratories (4%) obtained an unsatisfactory cumulative score (33 or more penalty points cumulatively).

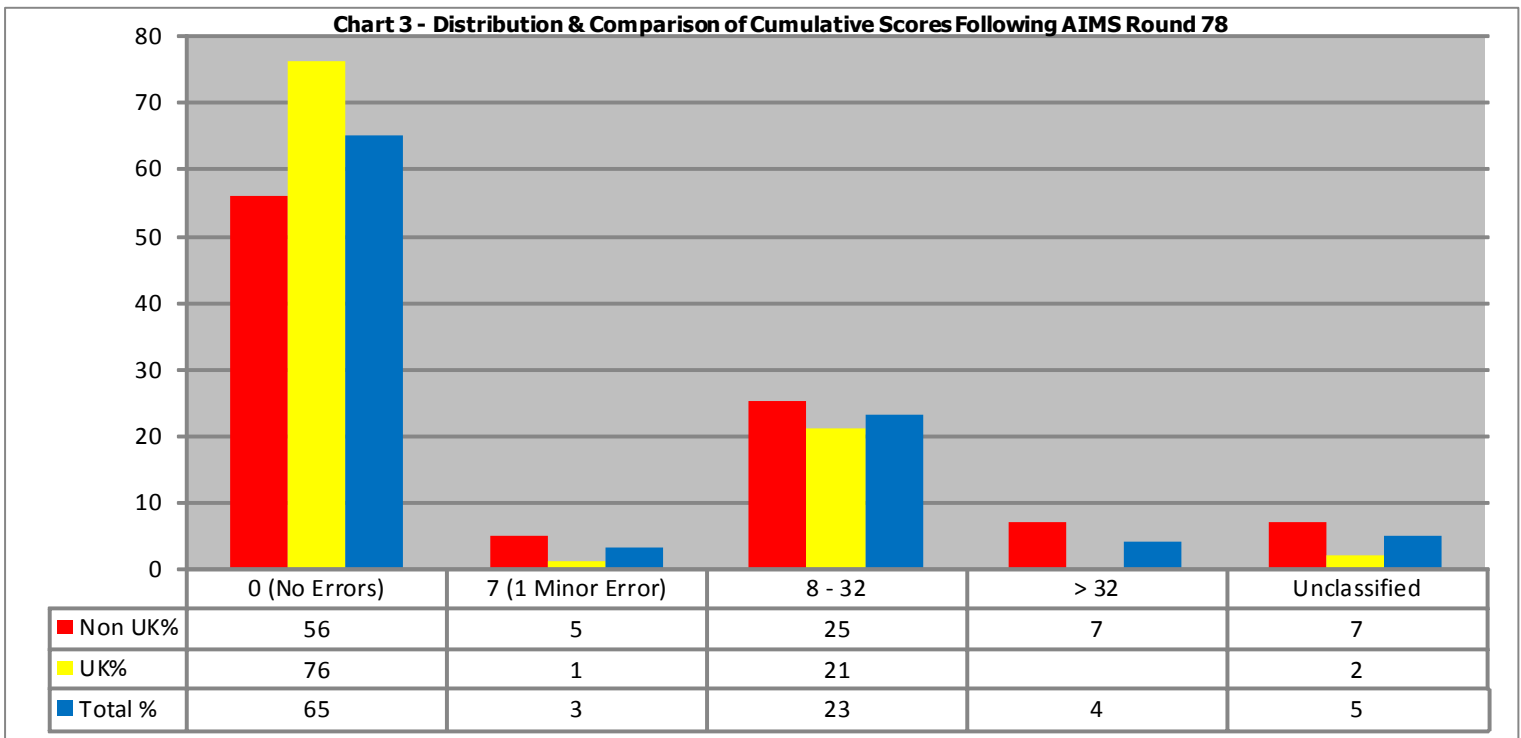
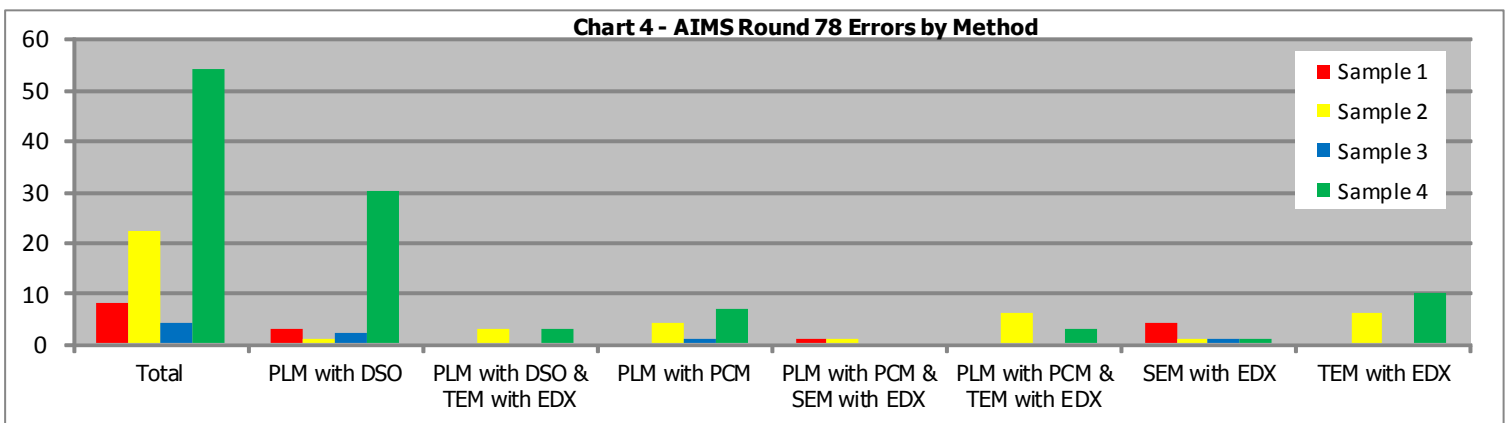


Chart 4 shows the number of errors made on each sample for all UK and Non-UK laboratories.

PLM - polarised light microscopy. DSO - dispersion staining objective. SEM - scanning electron microscopy. EDX - energy dispersive X-ray. TEM - transmission electron microscopy. FTIR - Fourier transform infra-red.

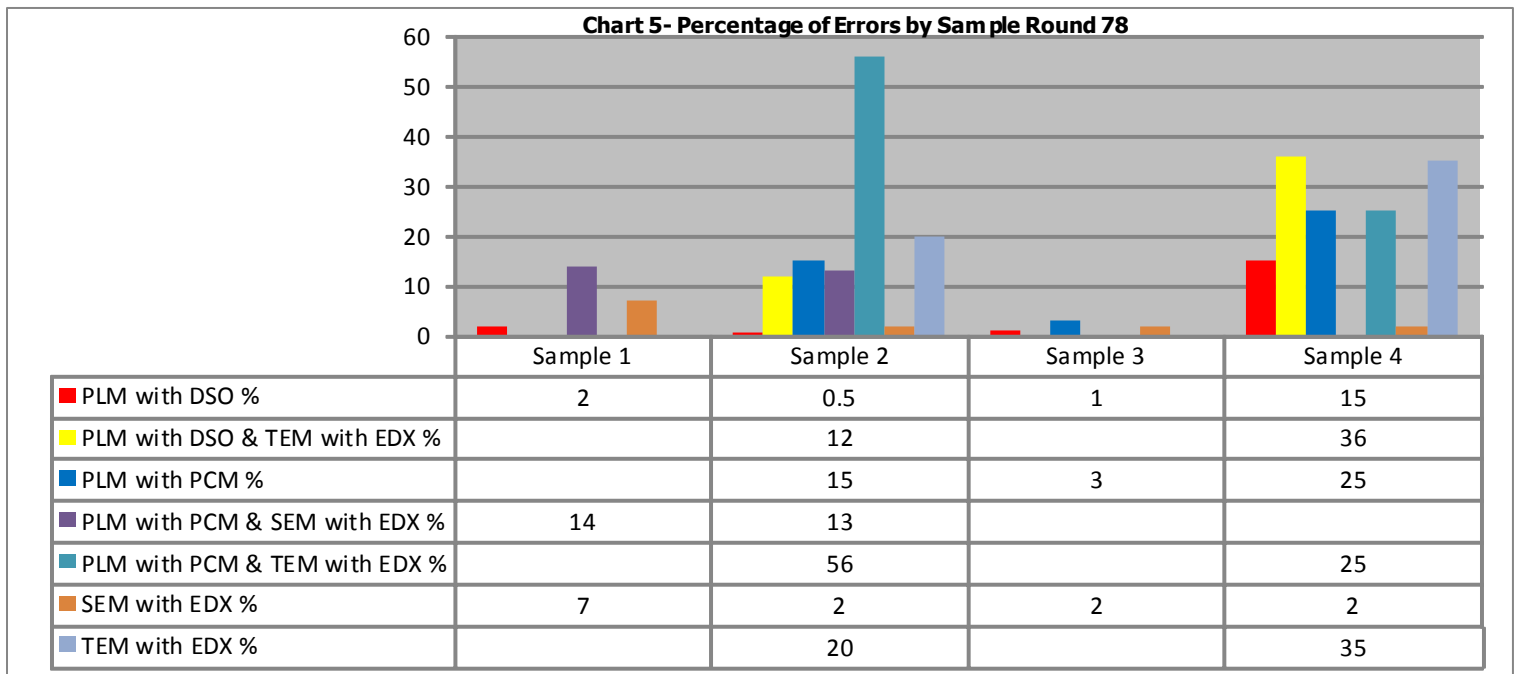




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Chart 5 shows the percentage of sample errors by method.

Of the 363 participating labs in R78 the method used in terms of the number of labs was as follows : FTIR, 1 lab; PLM with DSO, 197 labs; PLM with PCM, 28 labs; SEM with EDX, 61 labs; TEM with EDX, 29 labs; PLM with DSO & TEM with EDX, 25 labs; PLM with PCM & SEM with EDX, 8 labs; PLM with PCM & TEM with EDX, 12 labs; and Other, 3 labs.



### 3. For Your Information - AIMS NEWS !!

The next round of AIMS will be despatched by week commencing 17th April 2023. Please ensure you have subscribed for the new PT year. Samples will not be despatched until full payment has been received. Please ensure your contact details are kept up to date and inform us straight away if anything needs amending prior to despatch.

Our courier company has advised that overseas laboratories **must** provide their EORI (Economic Operators Registration & Identification) and VAT number to assist customs processing their packages in a timely manner. If you haven't provided this information to us already, please email the PT Team with the details - including your PT Lab number. It is important for laboratories to inform the PT Team if they are having issues receiving their samples due to customs.

If you require a sample to be investigated by HSE following completion of a round, please remember to advise the PT Team within 10 working days of your report being issued so we can let you know the process for returning it to us. Following R77 there were two samples returned to HSE for investigation. The samples were investigated and score applied by HSE was amended and reports reissued.

A reminder that we are still mainly working from home, so if you need to contact us please send an email and we will respond as soon as we can.

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