



AES-v-RCF solubility test kit get a fast and clear diagnosis

instructions & guidelines

The solubility test kit provides a simple colour comparison technique which enables differentiation of bio soluble AES fibres and insoluble RCF.

AES fibres contain soluble oxides such as calcium and magnesium, RCF does not.

If the fibre is soluble a colour change can be detected.

In the case where the test is used to identify the furnace lining, a clean sample should be taken from as far behind the exposed fibre surface as possible. This will reduce the possibility of any airborne contaminants in the furnace atmosphere.

The test can be performed on products such as blanket, bulk, pyro and not VF converted products due to the fillers in these products interfering with the test.

Instructions - 7 simple steps

- 1** Wearing the gloves provided, sample a handful of clean fibre if possible 90+mm behind the hot face.
- 2** Add 1 scoop of the THI indicator powder to the colourless liquid and shake to obtain a blue liquid.
- 3** Use the tweezers provided to select a sufficient amount of material to fill the test tube up to approximately 3/4 full.
- 4** Screw the cap on tightly and shake vigorously for approximately 1 minute.



instructions - 7 simple steps

5 After approximately 1 minute, there may be a colour change :

- If the tube contains AES / Superwool fibres the liquid should change from blue / green colour to pink / purple colour (Consult your Colour guide enclosed).
- If the tube contains RCF fibres the liquid should remain constant blue / green (Consult your Colour guide enclosed).

Typically the colour change is almost instantaneous.

In the case where the fibre has come from the hot face of the furnace the reaction may be slower than the recommended time, allow up to 1.5hrs for a clear result.

Any colour change after this time should be ignored and is of no consequence to the result that should be recorded.



- 6 When test is complete, remove debris from tweezers with tissue paper or similar ready for re-use.

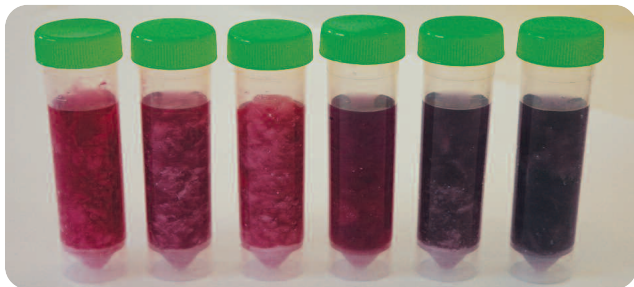


- 7 The solution is safe to dispose of down the drain, run the tap water for 30 seconds, and then a further 30 seconds whilst pouring the solution and rinsing the tubes before disposing all together with the used gloves.



instructions - 7 simple steps

**As a guide
the colour
changes
have been
pre-determined
as follows:**



Tested AES material after the recommended time

If sample is AES material the solution colour will be within this range:



If sample is RCF material the solution colour will be within this range:



colour chart

Guidelines

- Ensure test is carried out on insoluble RCF and bio soluble AES fibres of non vacuum formed converted products.
- Always ensure a new pair of gloves are worn with each test performed.
- Do not handle the fibre without gloves this can cause a false-positive.
- Test the fibre from as far back from the furnace / kiln as possible for the most reliable results (more than 90mm behind the hot face) to avoid excessive heat exposure or contamination.
- The test tube liquid solution should be blue / green when kit is received.
- DO NOT use normal tap water to top-up solution in tubes - this will contaminate the test and give you a false-positive.

continued...

- Test tube solutions have a shelf-life of 6 months - see tube label for expiry details.
- Best results achieved with a large sample of material placed in the tubes. But do not fill tubes completely to the rim in order to allow space for solution to mix when shaken.
- After 1.5 hrs when the material has been placed in the tubes, the results are no longer valid and you may start to see some colour change.
- Keep all tubes stored in the kit case - if exposed to strong sunlight, discolouration may occur.
- The test should be conducted at room temperature (20°C) or above.

DISCLAIMER: Failure to follow the above directions and guidelines in their entirety or use of the test tube solutions after their noted expiration date can result in a faulty or incorrect result. Therefore, we make no claims, promises or guarantees about the accuracy or correctness of the result obtained from use of this solubility test kit.

What if?...

- **What if a sample floats in the solution and will not disperse?**

There may be a residual lubricant on the fibre which can be carefully burnt off using a kiln or naked flame. Another sample closer to the hot face should be used instead to perform the test.

- **What if there is furnace contamination on the fibre?**

Impurities on the fibre can change the colour from blue to pale pink, so a clean sample is recommended. If this is suspected, seek a clean sample from the cold face lining.

- **What if the colour turns yellow?**

The solution will turn yellow after the shelf life.
If it is not blue / green don't use it.



To re-order

Availability:

a: The Kit | b: 2 x Refill Pack | c: 4 x Refill Pack

To find out costs, further information and to place an order please contact:

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