



# 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.

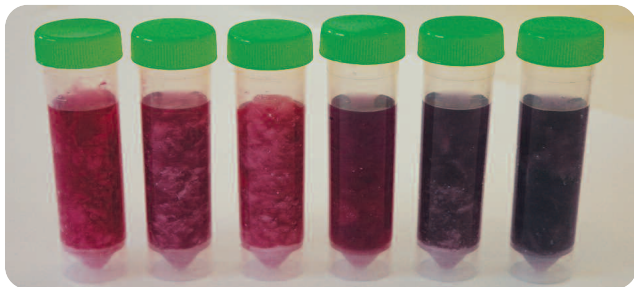


- 7 The solution is safe to dispose of down the drain, run the tap water for 30 seconds, and then a further 30 seconds whilst pouring the solution and rinsing the tubes before disposing all together with the used gloves.



**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.

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- 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.



# **MATERIAL SAFETY DATA SHEET** (Following 91/155/EEC) **SOLUBILITY TEST KIT**

MSDS NUMBER: 2600-0-EURO

## **I. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY**

**IDENTIFICATION OF THE PRODUCT:** This product is a test kit composed of various objects and reagents used to identify and differentiate rapidly between AES wools and RCF on site (except vacuum form products).

### **IDENTIFICATION OF THE COMPANY:**

**FRANCE** - MORGAN THERMAL CERAMICS HSE Department

Route de Lauterbourg - BP 148, 67163 WISSEMBOURG Cedex

Tel: +33 (0)3 88 54 95 50

Fax: +33 (0)3 88 54 29 20

**UNITED KINGDOM** - MORGAN THERMAL CERAMICS

Thermal Ceramics Limited, Tebay Road, Bromborough, Wirral, Merseyside, CH62 3PH. United Kingdom

Tel: +44 (0) 151 334 4030

Fax: +44 (0)870 336 3678

## **2. COMPOSITION / INFORMATION ON INGREDIENTS**

<b>Component:</b>	<b>%</b>	<b>EINECS NUMBER</b>	<b>SYMBOL</b>	<b>R PHRASES</b>
Monoethanolamine	< 1	205-483-3	Xn	R20; R36/37/38

None of the components are radioactive under the terms of European Directive Euratom 96/29.

## **3. HAZARDS IDENTIFICATION**

This preparation is not classified under Directive 1999/45/EC. However the solution contained in this test kit may generate a mild skin irritation at the site of contact. Irritating to eyes.

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## **4. FIRST AID MEASURES**

**Eyes:** In case of eye contact flush abundantly with water. Do not rub eyes.

**Skin:** In case of skin irritation rinse affected areas with water and wash gently.

If symptoms persist, seek medical advice.

## **5. FIRE-FIGHTING MEASURES**

Use extinguishing agent suitable for surrounding combustible materials. In case of combustion toxic fumes may be emitted.

## **6. ACCIDENTAL RELEASE MEASURES**

Separate parts from liquid and wash down the drain with large amounts of water.

## **7. HANDLING AND STORAGE**

**Handling:** Avoid direct contact with the reagent. Wear gloves provided with the test kit.

**Storage:** Store in a cool dark place.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

### **PERSONAL PROTECTIVE EQUIPMENT:**

**Skin protection:** Wear gloves provided with the test kit.

**Eye protection:** If necessary wear goggles or safety glasses.

**Respiratory protection:** Not applicable

### **ENVIRONMENTAL**

**EXPOSURE CONTROLS:** Not applicable

continued...

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## **9. PHYSICAL AND CHEMICAL PROPERTIES OF THE REAGENT**

**Appearance:** Blue / Green liquid.

**Boiling Point:** 100°C.

**pH of the kit solution:** 10-11.

**Odour:** Odourless.

**Non Flammable**

## **10. STABILITY AND REACTIVITY**

**Conditions or materials**

**to avoid:** Heat and Sunlight.

## **11. TOXICOLOGICAL INFORMATION**

**Toxicological Information:** Not applicable.

## **12. ECOLOGICAL INFORMATION**

**Ecological Information:** Not applicable.

## **13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Dispose off in non-hazardous landfill.

## **14. TRANSPORT INFORMATION**

Not classified as dangerous goods under relevant international transport regulations (ADR, RID, IATA, IMDG).

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**material safety data sheet**

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## **15. REGULATORY INFORMATION**

### **CLASSIFICATION AND LABELLING ACCORDING TO DIRECTIVE 67/548/EEC:**

This product is not classified according to Directive 67/548/EEC.

### **OTHER POSSIBLE REGULATIONS:**

Member states are in charge of implementing European directives into their own national regulation within a period of time normally given in the directive. Member states may impose more stringent requirements. Please always refer to any national regulation.

## **16. OTHER INFORMATION**

**WEBSITE:** For more information connect to the Morgan Thermal Ceramics' website:

**[www.morganthermalceramics.com](http://www.morganthermalceramics.com)**

**or contact:**

**e: [marketing@morganplc.com](mailto:marketing@morganplc.com)**

**NOTICE:** The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However safe as provided by law, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorisation given or implied to practice any patented invention without a licence. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product (however, this shall not act to restrict the vendor's potential liability for negligence or under statute).

**material safety data sheet**

## 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:**

### Thermal Ceramics

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