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Mr Paul Reid - Sales Director Celotex ltd Lady Iane industrial estate Hadleigh Ipswitch Ip7 6ba

Octavius Street, Deptford, London

Celotex RS 5000 Insulation

**Recorded Delivery** 

Dear Paul,

Please be advised that your Celotex RS 5000 insulation product has been deemed unacceptable for use by the NHBC at our Octavius Street project, a mixed –use development of some 121 apartments and commercial space. The NHBC have stated that your products are flammable and are therefore not to be incorporated into buildings over 18m in height, of which Octavius Street is one such; we enclose here their refusal notice for your comment.

We are well on with the build process, see attached site pics, and this refusal notice on the part of the NHBC has very serious implications in both cost and programme to the project with of course further consequential costs for the delay incurred directly resultant from the non compliance of your products

Your available Product Literature & Data sheets for this product does not state that it is not suitable for use as rainscreen insulant in buildings over 18m, your company has been well aware of this project and full knowledge of the respective detailing. We had been in contact via email & telephone with Jeremy Suttle (Celotex Technical Services Officer).

Clearly you are an international supplier and manufacturer of some repute and we are amazed that you send products to market that are not suitable for their intended use. You must have test data for these products, which you appear to be reluctant to share with use, is there some technical reason for your reluctance?

Currently we are faced with total removal of your product and substitution with a compliant material, which is clearly a huge issue in both time and money to us. This action is extreme to say the least and we look to you to immediately provide unequivocal laboratory supported evidence that your products have been fire tested to prove beyond doubt that they meet the requirements of surface spread of flame and general combustibility for buildings over 18m in height. It would seem

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unimaginable that a company with the market size of yours and technical expertise cannot provide such evidence; we require receipt of same by return.

In the unlikely event that you have no such evidence then we would suggest you notify all of the national Building Control Warranty bodies together with the wider construction industry advising that your products are not for use over 18m.

Furthermore please notify your insurers accordingly of your failure to provide products suitable for their intended use; we will be seeking full recompense for all of our costs, both direct and indirect incurred as an absolute consequence of your failures.

We trust you recognize this lamentable state of affairs we have here and treat this matter with the upmost attention it deserves from the most senior people in your business within the shortest possible time frame.

Yours Faithfully

Richard Hunt **Technical Director** 

Registered in England No. 1185592 VAT Registration No. 228 0362 82



















## **City Road**

From: Richard Hunt <RHunt@ardmoregroup.co.uk>

**Sent:** 23 March 2015 13:26

To: cityroad@ardmoregroup.co.uk

Subject: FW: Octavia Street Ardmore Development - Celotex RS 5000 Application

Importance: High

Follow Up Flag: Follow up Flag Status: Flagged

From: Dave White [mailto:DSWhite@nhbc.co.uk]

Sent: 11 March 2015 18:51

To: Ben Whitaker

Cc: Kevin Smyth: Richard Hunt: Damien McMahon

Subject: RE: Octavia Street Ardmore Development - Celotex RS 5000 Application

Importance: High

Hello Ben.

Ref. Octavia Street Ardmore Deptford Project Development – Fire Performance of Phenolic Insulation (Celotex RS 5000)

Thank you for sending me a copy of BWC Report ref. BWC/FE/858/V1. I have read the report and my comments are set out below.

- Looking at your detail fig.3.1 of the masonry outer leaf façade. For these ground to second floor masonry façade zones a case is made that the wall areas are not at risk if constructed with correct fire stopping to achieve effective fire resistance. Here, the design shows the following build-up and I have indicated the assumed fire performance for each element (using fire classification data according to available product data and manufacturers' information):
  - a. The interior wall with 25mm plasterboard provides a fire resistant layer
  - 100mm thk. Rockwool Flexi® achieves a Euro class A1 fire performance classification as defined in EN13501-1.
  - c. 12.5mm thk. GTEC Weather Defence Board has reaction to fire performance Euro class A1, as defined in EN1350-1: 2007
  - d. The **50mm** thk. **Phenolic type rigid insulation** board product (Celotex RS5000) is **not fully resistant to fire** and will burn in fire.
  - e. The 102mm thk. Solid brick single leaf masonry wall is conventionally accepted as being fire resistant.
- For the terraced balcony areas of the building with aluminium rainscreen cladding we can interpret the build-up, in terms of fire risk, with reference to your report figure 3. 2. Here, the design shows the following build-up and I have indicated the assumed fire performance for each element (using fire classification data according to available product data and manufacturers' information):
  - a. The interior wall with **25mm plasterboard** provides a **fire resistant layer**
  - b. 100mm thk. Rockwool Flexi® achieves a Euro class A1 fire performance classification as defined in EN13501-1.
  - 12.5mm thk. GTEC Weather Defence Board has reaction to fire performance Euro class A1, as defined in EN1350-1: 2007
  - d. The 80mm thk. Phenolic type rigid insulation board product (Celotex RS5000) is not fully resistant to fire and will burn in fire.

- e. 2mm thk. Aluminium rainscreen and bracketry material surfaces would be deemed to satisfy performance Class-0 or equivalent.
- I have also looked at a typical detail of the projecting balcony and it can be argued that lateral fire compartmentation of these wall areas is effectively achieved where the concrete terrace balcony structure extends approx.1.6m out from the external face of the rainscreen façade. It has been explained that this projecting concrete structure is effectively a terrace type balcony that runs continuously along each of the upper storeys until broken by the access stairwell /lift cores which have a continuous rainscreen façade installed over the full building elevation height. This is also shown in fig 3.4 of your report.
- 4. Other insulated parts of the building envelope, e.g. curtain walling panel types on lower level façade zones, are not referred to in the BWC report. Also, in this report the continuous rainscreen facades that extend the full height of the building are not fully assessed in terms of fire performance and level of safety/risk e.g. relating to the mechanism of fire spread within the concealed cavity where combustible insulation is installed behind an aluminium rainscreen façade. To my knowledge this specific type of rainscreen has never been tested by Celotex under the BR135 requirements.
- 5. It is apparent from reading your report that access to the full final version of the BRE fire test report 295255 for Celotex RS5000 was, unfortunately, not possible. Therefore, I feel that some of the assumptions made in your report on likely fire performance of this facade in comparison with what actually occurred during the testing are not strictly accurate.
- In conclusion, I regretfully cannot accept the conclusion as set out in point 8.0.3 of your report. The façade areas on this building have no proof from previous testing as required by Building Regulations AD-B. In terms of fire performance and risk the whole envelope design for buildings exceeding 18m in height does not fully comply with Building Regulations AD-B Section 12 Construction of external walls for Fire Safety.

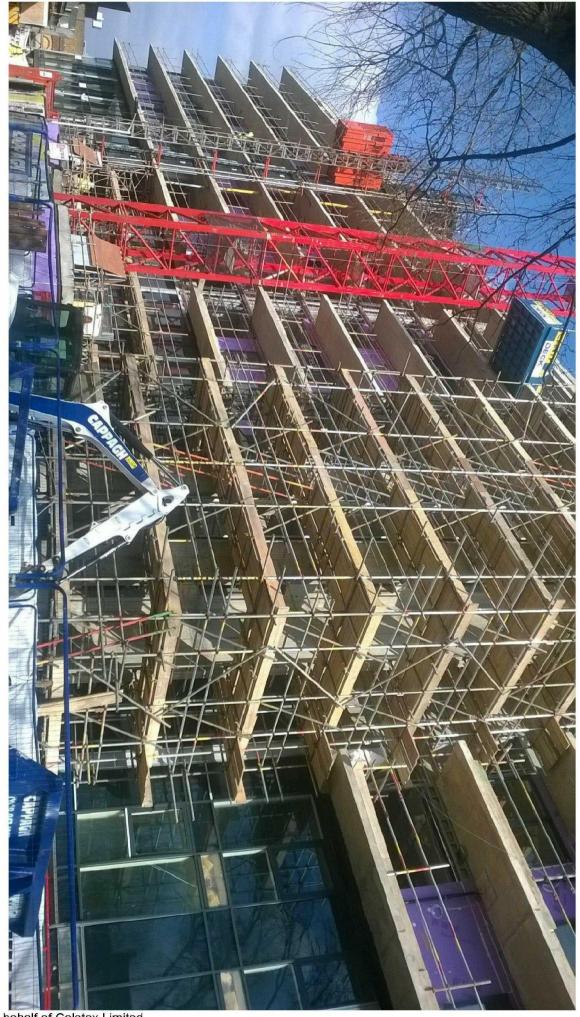
Best Regards

Dave White

Senior Technical Officer

NHBC Standards & Technical

NHBC House, Davy Avenue, Knowlhill, Milton Keynes MK5 8FP



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