

**This article addresses the importance of knowing that your Faced Metal Building Insulation is certified as FHC 25/50 per the UL723 and ASTM E84 Test Methods.**

Taken directly from the UL website:

<https://industries.ul.com/blog/stronger-together-increase-confidence-with-certified-composite-products>

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## **Stronger Together: Increase Confidence with Certified Composite Products**

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Many model codes, municipal laws and regulations require building materials, such as insulation materials, to be tested and evaluated in accordance with UL 723 or ASTM E84, Surface Burning Characteristics of Building Materials, before they can be installed in a jurisdiction. UL 723 and ASTM E84 provide the flame spread and smoke developed index values for these building materials. This test method can provide data on composite materials, such as batt and blanket insulation products comprised of fiberglass insulation, adhesives and facings.

However, this method is also capable of providing test results on the individual components of a composite product, such as the individual fiberglass insulation, adhesives and facings. One misconception is that the individual component values can be used to represent the composite material for compliance with UL 723 or ASTM E84 regulation or specifications.

It is important to understand that products, such as batt and blanket insulation, are tested as a composite material. Experience and historical data has shown that as a rule, component values cannot be considered as worse case or additive to represent the composite product. In other words, three components with a flame spread of 5 will typically not yield a flame spread of 5 for the composite.

Similarly, three components with a flame spread of 5 have not been shown to reliably predict a flame spread of 15 for the composite. Only testing the composite product will demonstrate the actual values. The requirement to test composite materials is reflected in UL 723, ASTM E84, as well as ASTM E2988 Flexible Fibrous Glass Insulation for Metal Buildings.

While codes may not always require third-party certification, there are numerous benefits to looking for third-party certification and labeling of the final, composite products.

Third-party certification demonstrates an ongoing commitment to safety and quality. For some specific products, such as faced blanket insulation, third-party certification can also prove beneficial because it demonstrates that the composite material – the insulation, adhesive and facing – has been evaluated and certified rather than the individual components.

This is an important distinction because combining materials can change the overall behavior of the final composite. This means that, even if the insulation itself were certified, the addition of adhesive and facing may change the behavior of the composite when exposed to fire.

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It is another common misunderstanding that if one of a manufacturer's materials is certified, their other materials are, as well. This is not always the case as certifications are issued by product. Most importantly, this means that if an unfaced insulation is certified and facing is added by the manufacturer or another party after the certification is complete, the final faced-form of the insulation does not bear certification. Often, the easiest way to avoid this issue is to look for finished materials with a reliable third party certification.

Certification with UL means a product has been evaluated, complies with UL's requirements, and is manufactured under a Follow-Up system, meaning the certification extends beyond testing. This Follow-Up Program allows UL to verify that products remain compliant with requirements and are produced in a manner representative of the construction of the product that was originally evaluated and certified. UL's Classification Mark on insulation products – "UL Classified" is the applicable term – is the manufacturer's representation that samples of that product have been evaluated as to their surface burning characteristics in accordance with UL 723 (ASTM E84).

The many advantages of third-party certification lead some building material product manufacturers to make it company policy to obtain UL Classification for their products to minimize the possibility of nonacceptance by Authorities Having Jurisdiction. Additionally, many purchasers, building designers and building owners understand UL certified materials are reliable. Specifying UL-Classified building materials also means the materials will automatically come with third-party quality control which, in turn, means UL will establish a field report to determine the nature of the nonconformance and take appropriate corrective action should an issue occur.

Composite products bearing the UL Mark demonstrate commitment to meeting model codes, municipal laws and regulations. You can verify a certification by checking UL's Product iQ database. Why take a risk when you don't have to?

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Bay Insulation Systems Laminating Facilities are UL Certified. Our faced metal building insulation products (composite material consisting of NAIMA 202-96® insulation, adhesive and facing) have been evaluated, comply with UL's requirements, and are manufactured/laminated under UL's Follow-Up Program. The following Bay Metal Building Insulation products bear the UL Classification Mark for FHC 25/50:

FSK R-3035 Faced Metal Building Insulation

FSK R-3035 HD Faced Metal Building Insulation

Vinyl Faced Metal Building Insulation

WMP®-10 Faced Metal Building Insulation

WMP®-30 Faced Metal Building Insulation

WMP®-50 Faced Metal Building Insulation

WMP®-VR Faced Metal Building Insulation

WMP®-VR-R Plus Faced Metal Building Insulation

Arenashield Faced Metal Building Insulation

Gymguard Faced Metal Building Insulation



**Look for the UL Classification Mark  
on every label of  
Faced Metal Building Insulation!**

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## UL Compliance via UL's Follow-Up Program

### *What Does This Mean?*

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### Steiner Tunnel Test at Underwriters Laboratories

We've submitted composite samples of every facing, adhesive, and fiberglass to UL to be tested in the Steiner Tunnel for their most precise and strict tests. Every sample that was submitted, upon being tested, produced a Flame Spread of less than 25 and a Smoke Developed of less than 50. This means they all qualify as Class A or Class I products.

#### Questions?

We know you may have questions about how our products qualify every time. The following may be helpful in answering those questions you have.

#### QUESTION:

That's great that they were all tested and that they all qualify, but the sample provided was simply one sample and one test conducted at that point in time. How can I be sure that what I am buying now is qualified?

#### ANSWER:

Every combination of facings, fiberglass and adhesive that make up the various composite products that have passed FHC 25/50 testing have a formula. The key to that formula is the amount of adhesive allowed on the facing. This will ensure that it will pass the test each and every time. Here at Bay, we have incorporated those formulas into our daily production to ensure that every roll produced will pass the test.

#### QUESTION:

How do I trust that this is really happening? Bay has so many facilities, and it's not that I don't trust Bay, but how can I really know for sure that it's done every time?

#### ANSWER:

We subscribe to UL's Follow-up Service, which allows us to put the UL Mark on every roll of faced MBI produced, at every plant, every day. We must submit our test results to UL, and UL will conduct unannounced visits to each facility to make sure that all are operating in compliance.

#### QUESTION:

What exactly does that mean, and how does that work?

#### ANSWER:

See the next page to see how we do it.

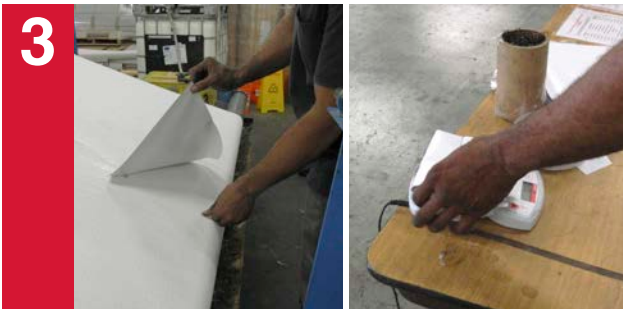
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**1** Prior to production of any faced metal building insulation order, we identify the type of facing requested and consult a chart to determine the amount of adhesive required to pass UL723.



**2** Then, we cut a swatch of the facing, weigh it, introduce it into our production process, and allow the adhesive to be applied.



**3** Next, we remove that swatch of facing from the production process and weigh it again. The difference in weight tells us the amount of adhesive on the swatch.



**4** If the weight of the adhesive on the swatch matches the value on our chart, the composite product will be compliant, which is then able to pass UL723. This allows us to put the UL mark on the label.

This process is completed at every plant, on every facing, every day. We log the results and send the data collected to Underwriters Laboratories. As an added measure of checks and balances, UL will conduct unannounced visits to each facility to make sure that all are operating in compliance.



**To learn more, call your Bay District Manager.**