

RE: Thermal Evaluation of Perimeter Channels

Andrew Crosby <acrosby@rjc.ca>

Wed 2020-09-02 10:04 AM

To: Adam Stephenson <Adam@stellaglasshardware.com>

Cc: Roy Lamont <Roy@stellaglasshardware.com>; Varun Kumar Kottoori <Varun@stellaglasshardware.com>; Matthew Lipiec <MLipiec@rjc.ca>; Lucy Wang <LWang@rjc.ca>

Hi Adam,

If we only do the thermally broken show with 6 IGUs we can do it for \$1800.

Note this won't be an effective u-value of the entire wall just a u-value of 1 component.

Let us know if this works.

Andrew Crosby, BASc, P.Eng., LEED® AP BD+C

Associate

direct (647) 792-0707 | mobile (416) 434-2434 | acrosby@rjc.ca | rjc.ca

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From: Adam Stephenson <Adam@stellaglasshardware.com>

Sent: September 1, 2020 3:57 PM

To: Andrew Crosby <acrosby@rjc.ca>

Cc: Roy Lamont <Roy@stellaglasshardware.com>; Varun Kumar Kottoori <Varun@stellaglasshardware.com>; Matthew Lipiec <MLipiec@rjc.ca>; Lucy Wang <LWang@rjc.ca>

Subject: Re: Thermal Evaluation of Perimeter Channels

Hi Andrew,

Thanks for sending this through. Our main goal is to get a U-Value for our PC3710 perimeter channel using 6 IGUs. With this in mind is there anything from your scope below which could be shaved off to save time and/or cost?

For example the U-Value for the entire wall is great to have but is not necessary. From our talks is this a prerequisite for you to generate the U Value for perimeter channel or is it an extra step?

Cheers,

Adam



Adam Stephenson P.Eng.
Director of Engineering

Stella Custom Glass Hardware

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From: Andrew Crosby <acrosby@rjc.ca>

Sent: August 28, 2020 8:14 AM

To: Adam Stephenson <Adam@stellaglasshardware.com>

Cc: Roy Lamont <Roy@stellaglasshardware.com>; Varun Kumar Kottoori <Varun@stellaglasshardware.com>; Matthew Lipiec <MLipiec@rjc.ca>; Lucy Wang <LWang@rjc.ca>

Subject: RE: Thermal Evaluation of Perimeter Channels

To clarify:

Generic podium wall study with glass fins, perimeter shoe at base and top.

30ft high wall, 5ft wide panels, 3 panels tall, glass fins supported on 2 sides.

Condensation and dew point analysis

Estimate effective u-value for wall

3 base thermal models to represent sill, butt joint and connection to glass

6 IGU options (Standard with Air and Low-e or argon filled, with aluminum, stainless or thermal plastic spacer)

Will provide summary report with images.

Fee: \$2500

Let me know what you think.

Andrew Crosby, BASc, P.Eng., LEED® AP BD+C

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From: Andrew Crosby

Sent: August 26, 2020 2:58 PM

To: 'Adam Stephenson' <Adam@stellaglasshardware.com>

Cc: Roy Lamont <Roy@stellaglasshardware.com>; Varun Kumar Kottoori <Varun@stellaglasshardware.com>; Matthew Lipiec <MLipiec@rjc.ca>; Lucy Wang <LWang@rjc.ca>

Subject: RE: Thermal Evaluation of Perimeter Channels

Hi Adam,

For a thermal study and report of the glass and perimeter conditions the fee would be \$2500.

Let us know if this is acceptable and we will get started.

Andrew Crosby, BASc, P.Eng., LEED® AP BD+C

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From: Adam Stephenson <Adam@stellaglasshardware.com>

Sent: August 25, 2020 11:49 AM

To: Andrew Crosby <acrosby@rjc.ca>

Cc: Roy Lamont <Roy@stellaglasshardware.com>; Varun Kumar Kottoori <Varun@stellaglasshardware.com>; Matthew Lipiec <MLipiec@rjc.ca>

Subject: Re: Thermal Evaluation of Perimeter Channels

Hi Andrew,

I checked in on this discussion and there is a strong need to develop this evaluation for the thermally broken channel PC3710 but there are no project specifics. I suggest we use 11405P - 700 St-Jacques which Lucy is working on as the basis for the first analysis. This should make it easier as you have all the wall design details on that project. We are interested in the channel performance so keeping the evaluation outcome as close to that goal would be great.

Can you please send a quote for a thermal performance review of our thermally broken channel using 700 St Jacques as the first analysis?

Cheers,
Adam



Adam Stephenson P.Eng.
Director of Engineering

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From: Andrew Crosby <acrosby@rjc.ca>

Sent: August 25, 2020 8:18 AM

To: Adam Stephenson <Adam@stellaglasshardware.com>

Cc: Roy Lamont <Roy@stellaglasshardware.com>; Varun Kumar Kottoori <Varun@stellaglasshardware.com>; Matthew Lipiec <MLipiec@rjc.ca>

Subject: RE: Thermal Evaluation of Perimeter Channels

Hi Adam,

As discussed, we are happy to help.

Creating a thermal performance for the shoe (broken and unbroken) is useful but typically only used in combination with overall performance.

Parameters such as air cavity thickness, cavity gas (air, argon etc), low-e coating, IGU or monolithic, size of glass, jamb and head detail will have impacts on

overall values for wall.

We suggest starting with this specific project study and then we can discuss what parameters can be fixed to explore other studies for comparison.

Matt Lipiec is our thermal guru and is cc'd on this email.

Please send the wall details through and we will confirm the quote and get started.

Andrew Crosby, BASc, P.Eng., LEED® AP BD+C

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From: Andrew Crosby <acrosby@rjc.ca>

Sent: August 24, 2020 7:06 PM

To: Adam Stephenson <Adam@stellaglasshardware.com>

Cc: Roy Lamont <Roy@stellaglasshardware.com>; Varun Kumar Kottoori <Varun@stellaglasshardware.com>; Matthew Lipiec <MLipiec@rjc.ca>

Subject: Re: Thermal Evaluation of Perimeter Channels

Hi Adam,

We do have thermal capabilities and are looking into this. We will have initial feedback tomorrow.

Andrew Crosby P.Eng.

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On Aug 21, 2020, at 5:17 PM, Adam Stephenson <Adam@stellaglasshardware.com> wrote:

Hi Andrew,

I hope you enjoyed your time off last week. I am sure you are quite familiar with our thermally broken perimeter channel.

https://www.stellaglasshardware.com/glass-hardware/?product_category=perimeter-channels&product_application=all&tax=true

We have been asked, a number of times, what the thermal performance of this system. I have generally said that it depends on the type of glass being used inside the perimeter channel. The discussions usually end there. What we would like to do is evaluate the perimeter channel assembly in such a way that we can add different glass specs and establish the overall rating as referred to above. We have done this in our VUE doors where we have a spread sheets where we enter some glass specs and get a rough indicative thermal performance number. The hope would be to replicate this for our PC. In past discussions I had the impression you guys have thermal evaluation capabilities.

Is creating this type of rough spread sheet a reasonable request? If yes, can you let us have your thoughts about next steps and how RJC may be able to help. If no, we would send you a cluster of about four or five glass specs we've received recently and ask you to do those evaluations for us. Ultimately, though, we are hoping to create a calculator that allows us to add the thermal coefficients of the glass so we can give this feedback to our customers.

I look forward to hearing your thoughts on this. We are trying to figure out our plan of action on this by **Wednesday Aug 26** at the latest and would execute that plan ASAP once we have it from you.

I know you will be playing catch up and we have a specific customer request they want us to look into. Any suggestions on the fastest plan of action would be amazing.

Cheers,
Adam

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Adam Stephenson P.Eng.
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