Episode 38: How the Market is Changing for PVC

Daniel Robbins: Here we are again for another episode of Above It All, a roofing podcast dedicated to the industry by Johns Manville. Today, we are lucky to have a new product manager on our team, and also on the podcast, Brandon Mark. Brandon, how are you doing, sir?

Brandon Mark: Doing great, thanks for having me today.

Daniel Robbins: So everyone, if in case you don't know, Brandon Mark is now filling the PVC product manager position on the team. But before we go into what are some things that you're gonna work on and what your passions are surrounding that, let's talk about what your background is, what brought you here to JM, and what your story in your career.

Brandon Mark: Well, I guess the first thing about me is where it all kind of started, I got into my career starting as a facade access consultant, I assisted engineers, architects with the design and layout, various roof access equipments such as davits, follower systems, and the big building maintenance units that you see on the super talls, those big cranes, also known as BMUs, did that for a number of years, and then transitioned to the manufacturing side of the industry where I landed with Johns Manville and the specifier services group. I assisted architects in that opposition as well with the selection of the overall roof system, all the roofing materials, and then would provide a tailored specification around those materials and the installation requirements. I held that role for a few years, and then transitioned to account management for JM. That position was mainly for the pricing side of the roofing materials that I had wrote specifications for. After a few years with that, made the transition to product management where I am now covering all of our vendor items, but mainly with a focus on our JM-PVC single-ply roofing product line.

Daniel Robbins: So really, it sounds like you've gotten this great understanding of the whole realm of construction, building envelope, right? That's kind of like the systems that you were working with before, all pertaining to maintenance of the building envelope?

Brandon Mark: Correct. Yeah, really, it's always been on a roof. I'm just shifting how I look at it now. So how did we access and clean that envelope to now, how does the upper portion of that, the roof protect the overall building? So it's kind of been full circle.

Daniel Robbins: It's cool. So did you get a degree in construction?

Brandon Mark: In architecture actually.

Daniel Robbins: Architecture? Very cool, so you can draw a little bit.

Brandon Mark: Yeah, they taught me how to draw and then I kind of steered away from that.

Daniel Robbins: You don't dabble anymore at all?

Brandon Mark: In the free time I scribble a little bit.

Daniel Robbins: Very cool. It's like, what kind of scribbling?

Brandon Mark: Probably, it's mainly just buildings. Let's be honest, it's...

Daniel Robbins: Like, well, will you draw at a scale space as though if you're thinking about something? Will you draw a roof set up maybe? Or how does that kinda like... I know, I've known a lot of of architects and they do use that skill in their crafts, so to speak.

Brandon Mark: Yeah, I'd say more now, I use it for just hobbies, I love wood working, and me and the wife bought an old farm house, so now I really use those same type of skills learned at school to draw the updates that we're looking to make for the house so kinda still use the education in the personal world.

Daniel Robbins: No, it's very cool. I'd love to hear more about the wood working stuff later, but the topic is PVC, let's talk about PVC, 'cause I know it's been something that we've had here, but we really haven't... We haven't given the line as much love as we can, really focused on other markets are big contractors, what people are using, but more than ever, PVC is growing, so before we get to this kind of market dynamic change, let's talk about what is it, what are its benefits in your perspective?

Brandon Mark: Definitely. I'd say though, the first thing that the listeners really need to understand if they're new to it is what is PVC. PVC really is when it comes down to it, a rigid polymer, most people might recognize it from other construction materials, such as the white PVC pipes that you see in your house, or even better yet, if anyone's got a backyard and struggles with sprinkler systems, you're very familiar with PVC pipe. But as I had said, PVC is a pretty rigid material, so it doesn't necessarily make the best roofing membrane to begin with, so in our industry, we've realized over the years that we needed to add what we call plasticizers to that rigid PVC compound to make it more flexible, so that we can actually use it in roofing applications. And these plasticizers that I mentioned, along with some other chemicals that we add to the PVC, do give unique properties to PVC that TPO and EPDM, your other single-ply membranes just don't have. Those extra features of PVC really stand out when it comes to the overall chemical resistance actually of PVC, and that's why we're seeing it utilized in specialty projects, specialty situations.

Daniel Robbins: So you say about like chemical degradation of...

Brandon Mark: Correct.

Daniel Robbins: Of certain materials that they're exposed to jet fuel, or if they're exposed to manufacturing, maybe even outputs from a manufacturing district, things like that?

Brandon Mark: No, that's spot on. A real good one to think about is food processing, so if you're processing animal fats, greases, sometimes they get sucked up, excuse me, by the HVAC equipment and can actually be deposited onto your roof membrane, so it's very advantageous for building owners to have that chemical resistance capability to their roofing membranes.

Daniel Robbins: So have you seen cases where that type of chemical output from a plan or a material output would destroy a regular roof that's not PVC?

Brandon Mark: Yeah, we've seen a couple of situations where the roof has really failed because of the overall chemical exposure.

Daniel Robbins: They just started to open up almost...

Brandon Mark: Correct. Seams will fail, or your overall thickness over the scrim will start to degrade and you'll end up just seeing failures, water leaking where it shouldn't leak.

Daniel Robbins: Now, with that extra durability and comparing to other single ply-lines, you're not getting a bigger guarantee out of it, you're just getting the same guarantees, but guaranteed for that specific environment, right?

Brandon Mark: Correct. Yeah.

Daniel Robbins: Gotcha, okay, very cool. Yeah, let's talk about the market demand a little bit, 'cause I think there's a lot of people projecting that just the PVC market is gonna explode, and it makes sense, especially if we bring more jobs in America, we're building more manufacturing bases, we're maybe building our infrastructure out, you're gonna need those chemical-resistant roof system. So is that kind of like what it's in alignment with? What are you seeing a little bit?

Brandon Mark: No, definitely, I think we're gonna see really a vertical integration of PVC across a bunch of different industries, from healthcare to some pretty interesting new vertical markets such as green houses on a large scale, that with the current climate change issues that we're seeing, we've had lots of discussions about bringing food production indoors, and there's gonna be unique situations, processing foods, how do we grow that, how do we provide a building that provides protection to facilities like this, it's kind of a realm that we're not really used to, and I think it's an exciting challenge that I think we could really see some advantages of PVC moving forward in those types of situations.

Daniel Robbins: So let's talk a little bit about attachment methods for PVC, and I think you alluded to this, and I think an engineer or someone who's been working with the product would say this too, like it's not as malleable as TPO, doesn't work the same way. So what are some great attachment solutions? Of course, we have probably standard ways that you would attach both TPO and PVC with. In your ideas, what are some great solutions that are more modern that always work great with this line?

Brandon Mark: To your initial point there, it's pretty standard across all single plies, the attachment methods, you've got your mechanically attached, fully adhered. One of the leaps in technology, of course, a few years back was induction welded systems, utilizing plates that have the same type of membrane on the top of that, and you're actually physically welding that to the bottom side of the membrane...

Daniel Robbins: So Rhino, our RhinoPlate system, people love using that with PVC, I feel like...

Brandon Mark: Correct, yeah. It's less punctures in the sheet, you can meet some different uplift pressures that you can't really with a standard mechanically fastened system, so it's pretty advantageous in certain climates, of course. Apart from that though, to your second point, one of the cooler attachment methods, I would say, is the hybrid systems. So for PVC, if we have a fleece back sheet, we actually have the option to put that down with hot asphalt over a MultiPly Bituminous system. So with a hybrid, you actually get redundancy that you don't normally get with just a standard single ply membrane, you've got multiple layers of water-proofing underneath with bituminous sheets, and then you also have that cool roof reflective capability of the PVC along with its chemical resistance properties, so it's a very durable roof that can be used on a wide variety of projects to really give that peace of mind to a building.

Daniel Robbins: That's fascinating. So you're talking about having an SBS vapor barrier, you do your insulation, you do your boards, and not an SBS cap sheet, but an SBS ply?

Brandon Mark: Correct. Yeah, and on the side...

Daniel Robbins: And then PVC cap on top.

Brandon Mark: Yep.

Daniel Robbins: Wow, that's durable.

Brandon Mark: Yeah, I know, it's very durable.

Daniel Robbins: That's rich.

Brandon Mark: A lot of redundancies.

Daniel Robbins: No pun.

Brandon Mark: Yeah. Comes at a premium of course, but definitely worth it to a lot of people.

Daniel Robbins: You sparked my mind on this too, I think, isn't there another... It's not a hybrid system, but a hybrid technique of adhering, like let's just say you've got your two-part UIA, you're using it on your board as your insulation with the fleece back PVC, I'm pretty sure you can use our two part UIA...

Brandon Mark: You can.

Daniel Robbins: With that as well, as an adhering methodology. So there's options. I think another thing we should touch on is our PVC All Season Sprayable Bonding Adhesive, and I don't know if you've gotten to see that first hand, but for me, it's a very... I don't know whoever has worked with the product before, we have it for single ply, we have it for PVC as well, they're two different products, but the application is the same and the quality is the same, but I would say that's probably the fastest attachment methodology, right?

Brandon Mark: Yeah. Larger coverage rate too. It's a great product, it allows for a lot more flexibility in putting the system down.

Daniel Robbins: Yeah, and I think that gives testament to what we're trying to do as a company, we wanna cover the basis on this product, and not only that, we wanna innovate the basis so that people can use this to the max when they buy their system from us, so to speak, right?

Brandon Mark: Yeah.

Daniel Robbins: Well Brandon, it's been a pleasure. I'm excited to have you on soon, 'cause I know you're probably gonna come back on and we're gonna talk more about PVC stuff that the JM is specifically gonna be working on to bring more value to customers. But thanks so much for being on this episode.

Brandon Mark: Yeah, no, thank you, I appreciate you having me on and yeah, definitely I'll be back, we've got some pretty exciting things coming in the near future here, so I'd love to get back on and let everyone know what those are.

Daniel Robbins: Awesome. We'll catch you guys next time. Stay safe out there.