

Dear Mr. Heavens,

I recently came across your article entitled "Would metal or wood be better to cover radiators?", and saw that you were looking for some information on which one is best. My name is Rob Bornmann and I am the owner of Bornmann Manufacturing Co. We have been manufacturing metal radiator covers since 1945 at 3731 Old York Rd in North Philadelphia. My grandfather started the company after serving at the Navy Yard where he was asked to design a cover for the radiators that were in many of the offices at the time. The design that he came up with over 60 years ago, is still the same design that we use today. And 60 years later, radiator covers are the only product we manufacture.

The way that a radiator works is by convection. A properly made cover will not hurt your heating efficiency and assist in putting the warm air in the "living area" of the room. For the cover to be efficient, it needs to have an opening wide enough at the bottom of the cover so the cold air can flow underneath, get warmed by the radiator, and then flow out into the room (see attached picture). A properly designed cover should also have an insulated top, which prevents the hot air from rising directly to the ceiling and forces the air out the front of the cover. This also prevents the top from getting hot and allows it to be used as a shelf. We have made our covers this way since 1945. In that time, we have supplied covers from Maine to Washington DC and have had thousands of very satisfied customers.

I think the debate between wood or metal has been ongoing since the invention of the radiator. I tell all of my customers that if you want to have save on your heating bills and be more "green" then you should always get a properly made metal cover. While some of the more expensive wood covers are very attractive, the problem with wood is that it is an insulator. Without getting into too much detail, insulators prevent electrons from flowing freely into other atoms and thus the movement of the energy is stopped. Therefore, the wood absorbs some of the heat energy and prevents the heat from properly circulating in your house. Metal, on the other hand, is a conductor. Any heat that is not directed out into the room via convection, will be radiated out through the metal. I tell my customers that if you put your hand on the hood of your car after you have been driving, it will still be warm, just like the cover. Also, while a metal cover will get warm, it will never be as hot as the radiator and you definitely won't be able to burn yourself; that is why schools and daycares are some of our biggest customers. The other problem with wood is, depending on its type, the cover will begin to dry out and start to warp, split, or crack. In order for a wooden cover to be efficient and long lasting, it has to be very well made and this comes at a price. The problem I see all too often, though, is that most are not. A poorly designed or DIY radiator cover, that uses only the perforations in the grille will not give the homeowner the type of heat they are looking for. And I would say about 20% of our customers are people who are replacing wooden covers that have warped, cracked, and just appear run down. Another downside to a wooden cover is that the wooden frames take up a lot more space than a metal cover, and in smaller old houses, that space usually comes at a premium. While I don't have any scientific data on the exact performance of how our covers work, I can tell you that after 60 years, we have never had one complaint about heat loss with our covers.

As to the argument of the aesthetic aspect of radiators and their covers, there are more options than just "standard grille." Although we have thousands of satisfied customers that purchase our standard grille covers, we have thousands more that purchase a more modern louver design. We designed an updated version of the original cover, about 10 years ago, to give people a more modern looking cover with all the benefits of a properly made metal cover (which many people actually think is wood.) Just to give you an idea of prices, our standard covers usually run \$149-\$199 and the louver model is \$219-

\$269, and all of our covers are custom made to size and we measure, deliver, and install. I have attached some pictures of our covers and you can also check out our website at www.customradiatorcovers.com.

Since we manufacture metal radiator covers, I think you know that I am partial to the kind of cover I think you should use, but thought I could help end the wood vs. metal debate. I hope I helped answer some of your questions concerning radiator covers and I would be glad to give you any more information or help in any way that I can.

Sincerely,

Rob Bornmann
Owner
Bornmann Mfg. Co.
www.customradiatorcovers.com
215-228-5826