

Are Metal Roofs Noisy When It Rains?

One of the most common questions when it comes to metal roofing is “Are metal roofs loud when it rains?” The answer to this question is no. This myth stems from the metal roofs that were traditionally used to cover barns and sheds. In these instances, the roofs were installed over the open barn frame and produced a louder sound when it rained. However, when a metal roof is installed on a house, it is installed over a solid wood roof deck, which absorbs most of the sound produced by rainfall (1). For this reason, metal roofs are not louder, and may actually be quieter than other roof types (3).

Studies performed by The Acoustic Group at the University of Luleå in Sweden determined that rain on a metal roof produces a sound intensity of only 52 decibels (1). This is equivalent to the sound of a quiet conversation at home, which registers an average sound intensity of 50 decibels (2). In comparison, sound is not interpreted as annoying by most people until it reaches the upper 70 decibels, which is four times louder than rain on a metal roof (2).

Metal roofs provide many differences when compared to other roofing materials, most of which are advantageous. But, in terms of the sound of rain falling on a home’s roof, metal roofs are no different and transmit virtually the same sound intensity as other roofing materials.

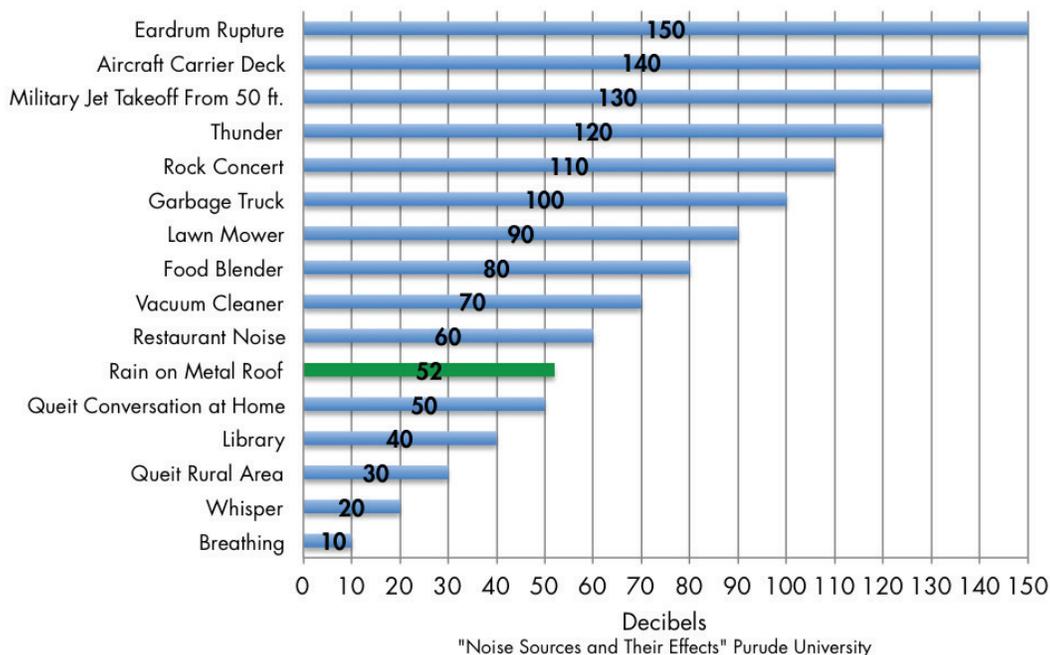


Figure 1: The sound intensity of rain on a metal roof compared to other common sound sources (2).

Resources

1. "Sound Emission of Metal Roofing." ATAS International, Inc.. N.p., n.d. Web. 20 Aug. 2015. <<http://www.atas.com/ATAS/files/84/84fdf524-156e-4967-bad2-2af5ad7b9d74.pdf>>.
2. "Noise Sources and Their Effects." Purdue University, Feb. 2000. Web. 20 Aug. 2015.
3. Provey, Joe. "Metal Roofs 101." bob vila. N.p., n.d. Web. 20 Aug. 2015.