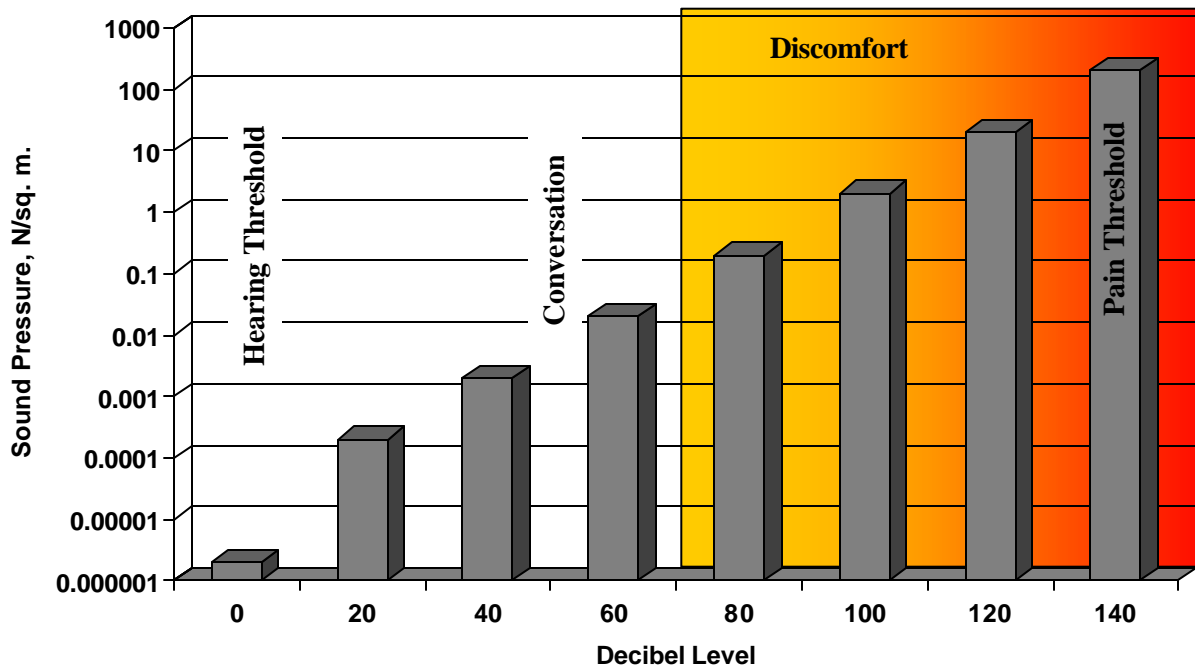


Hot Mix Asphalt

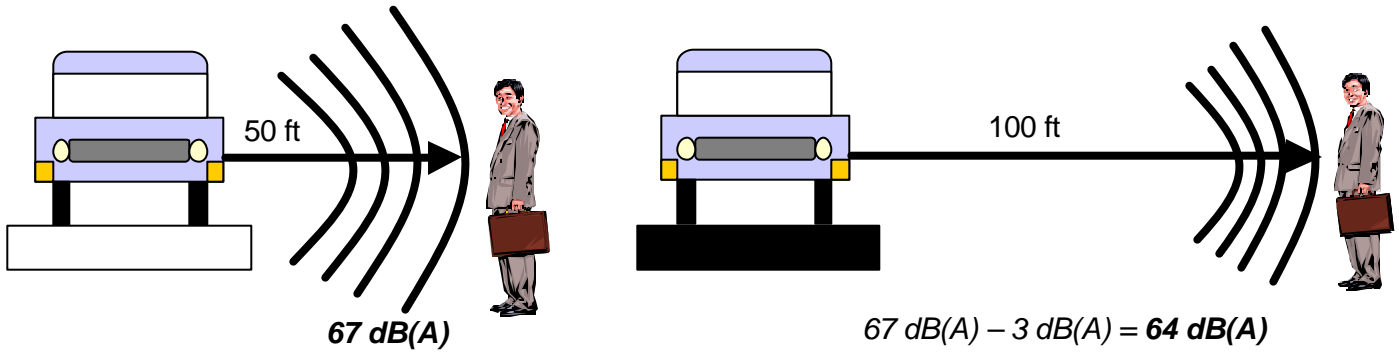
The Strong, Quiet Pavement

Have you noticed how suddenly quiet your car interior becomes when entering a stretch of hot mix asphalt (HMA) pavement? That is because HMA offers the quietest driving surface available today.

How we perceive sound can be described in terms of a scale called the decibel (dB) and it can be measured in terms of how the average person filters high- and low-pitched noise [dB(A)]. The dB(A) scale begins at zero, which represents the faintest sound that can be heard by humans with very good hearing. Conversations take place at 50 dB(A), a chainsaw whines at 100 dB(A), and the pain threshold begins at approximately 140 dB(A). Typical highway sounds rank at about 75 dB(A). The Federal Highway Administration (FHWA) has chosen 67 dB(A) as the point where state and federal agencies must consider reducing the noise level. HMA is an excellent noise abatement solution that also provides pavement strength and the smoothest ride possible.



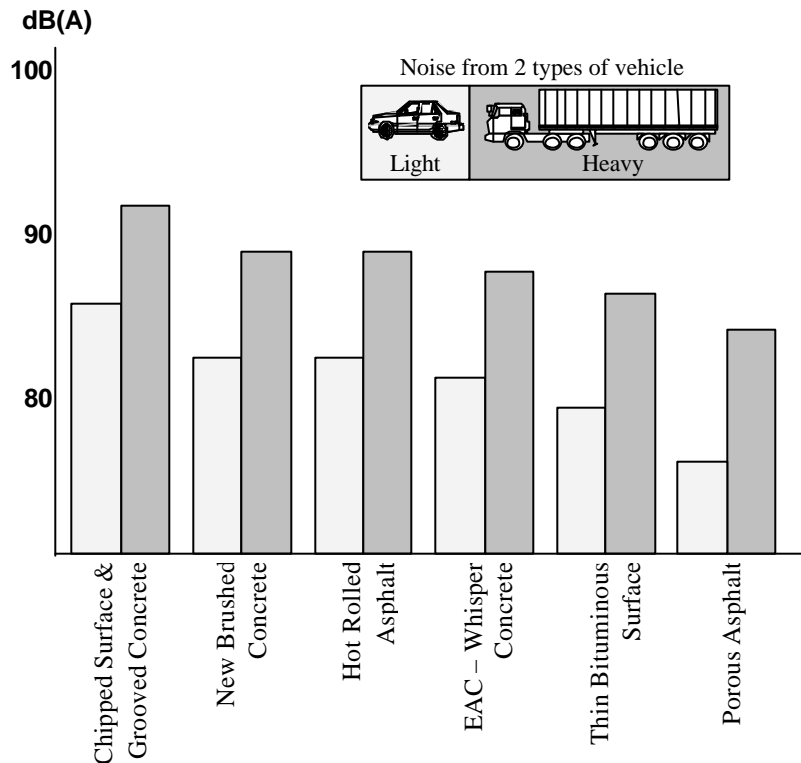
Research in the U.S. and Europe shows that HMA mix will reduce highway noise by 3 to 5 dB(A) and greater. A three decibel reduction in noise is equal to moving the nearby homes double the present distance. If the homes are now 200' away it will sound as if they are 400' away, a small investment to enhance property values.




The Decibel Scale: A reduction of 3 dB(A) is like doubling the distance from the noise.

A recent European study compared Hot Mix Asphalt pavement surface to other surface types. Noise was measured from light (passenger cars) and heavy (truck) traffic. The surface types compared were chipped surface, grooved concrete, new brushed concrete, exposed aggregate concrete (EAC)-whisper concrete, hot rolled asphalt, thin bituminous surface and porous pavement. The data shows that HMA is the quietest surface type available.

Most European countries originally select HMA and also are now placing a HMA overlay on their pcc roadway network as a means of mitigating roadway noise.



Surface Type Comparisons - U.K. (Measured at 24.5 ft. for 55 mph)  **HIGHWAYS AGENCY**

HMA is the strong, quiet pavement.

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