

Laser Cutting Silicone

Silicone is a synthetic polymer made up of silicon, oxygen, carbon, and hydrogen. It is known for its durability, heat resistance, and flexibility. In engineering, silicone is often used as a sealant and adhesive, as well as in the manufacturing of gaskets, seals, and other components that need to withstand high temperatures and harsh environments. Silicone is also used in the manufacturing of electrical components and medical devices. Other benefits of silicone include its resistance to water and chemicals, and its ability to maintain its properties over a wide range of temperatures. Additionally, silicone is non-toxic, making it safe for use in food and medical applications.

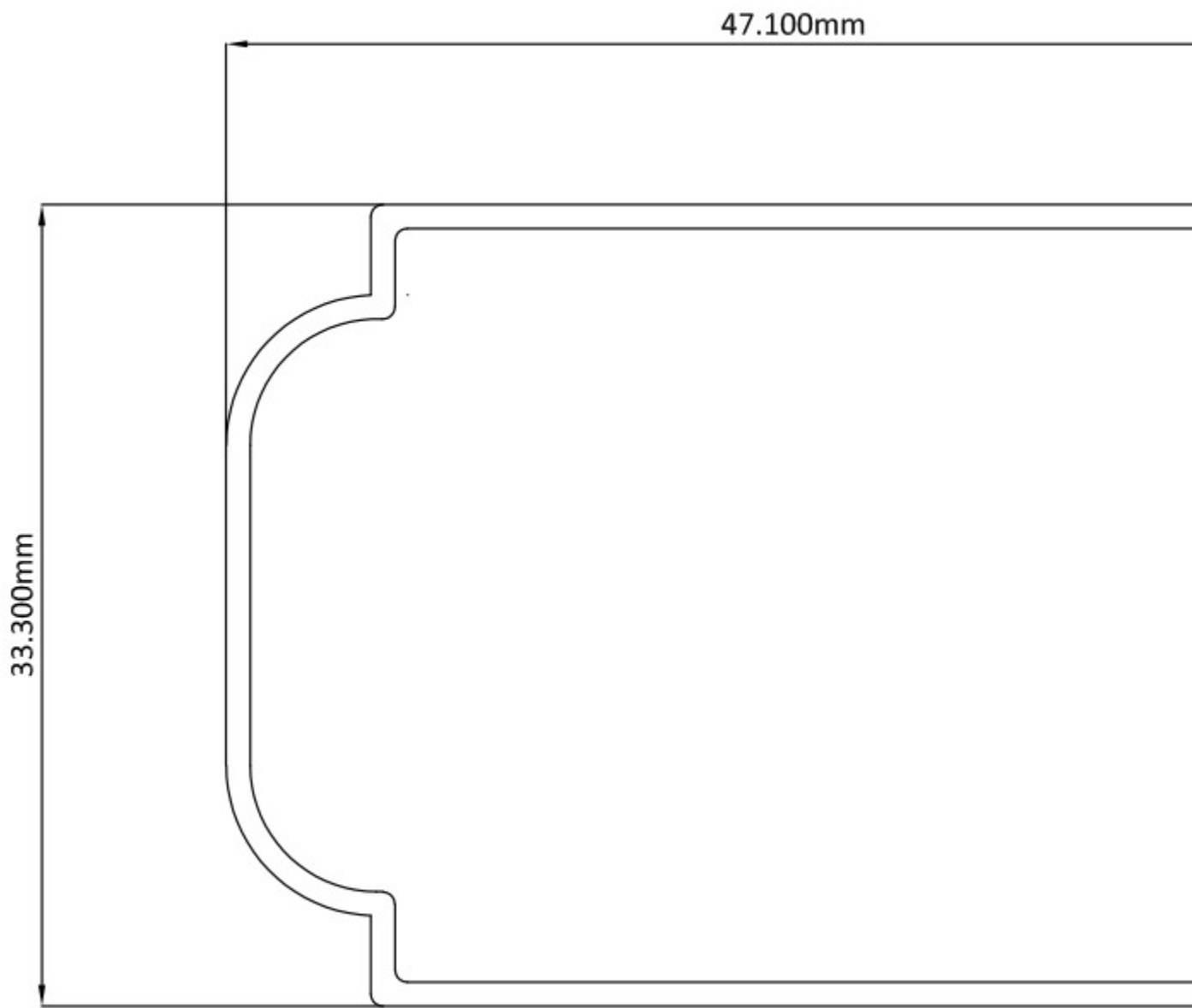
Our company specializes in cutting different types and colors of silicone materials, and we have cut up to 0.060" thick, but we typically process 0.032" or lower as the higher thicknesses are slow to cut. We prefer cutting colored silicone rubber material, as the clear material is more challenging to cut and more susceptible to burning/charring on the edges. We typically cut silicone rubber material for gaskets and can also cut silicone rubber with adhesive backing when required.

UV lasers, also known as ultraviolet lasers, are particularly well-suited for cutting silicone rubber because they have a very short wavelength, which allows for a high level of precision and control over the cutting process. One of the major advantages of using UV lasers for cutting silicone rubber is that they produce very little heat, which can cause warping or other defects in the material. This allows for a high level of precision and control over the final product, making it ideal for use in applications that require tight tolerances or precise measurements.

Additionally, the UV laser beam can be focused to a very small spot size, which allows for cutting of very fine details and intricate patterns. This is particularly useful in applications where small, precise cuts are required, such as in the production of gaskets, seals, and other parts that require a high level of flexibility and durability.

Another benefit of using UV lasers for cutting silicone rubber is that they are able to cut through the material without creating any significant mechanical stress, which can cause warping or other defects. This makes them ideal for use in applications where the final product needs to maintain its shape and integrity.

In conclusion, UV lasers are particularly well-suited for cutting silicone rubber because they have a very short wavelength, which allows for a high level of precision and control over the cutting process, produce very little heat, can be focused to a very small spot size and able to cut through the material without creating any significant mechanical stress. This makes them ideal for use in applications that require tight tolerances, precise measurements and maintain shape and integrity of the final product.



Please read more at:

[Laser Cutting Silicone - A-Laser Precision Laser Cutting](#)

[A-Laser Precision Laser Cutting - Laser Ablation, UV and IR Lasers](#)