

## Lighting Case Study: UV Torch gasket

Since the Coronavirus pandemic, Silicone Engineering has worked with various companies to help them develop technologies to defend against the virus.

One such technology is the use of Ultraviolet (UV) light which is included in a broad range of applications in commercial, industrial, and healthcare settings. UV light is the shortest wavelength generated by the sun and is separated into three groups UVA, UVB, and UVC.

UVC radiation is highly effective in destroying bacteria and viruses and is commonly used within hospitals to sanitise surgical tools and operating theatres.

### The Opportunity & Challenge

Recently a customer contacted Silicone engineering with an urgent requirement for a silicone gasket for a handheld UV light system. The UVC light was primarily used within medical settings such as operation theatres and patient rooms to sterilise the rooms and medical equipment against lingering viruses, superbugs and harmful pathogens.

With demand for sterilisation products still high due to the lasting effect of Covid-19, the customer was time-pressed to start the production and delivery of the UV lamp to their end-users.





## The Solution: **kSil<sup>®</sup> GP 60**

Our engineering team offered a shore A 60 hardness solid silicone gasket, punch from sheeting that would provide an airtight seal protecting the electronics within. The gasket would also act as an electrical insulator while protecting the electronics.

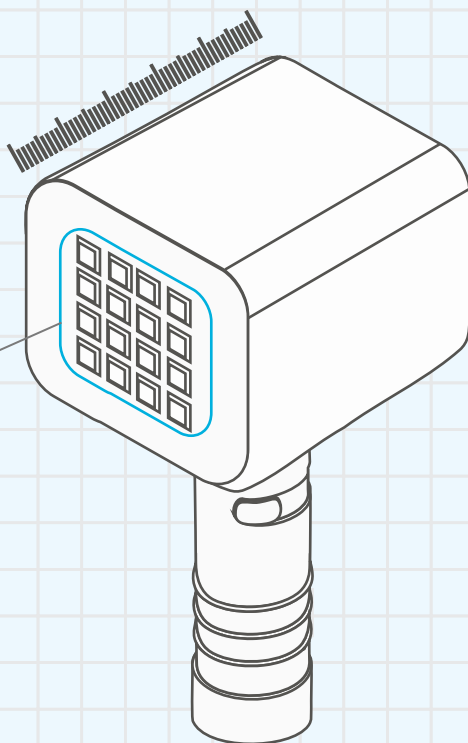
Due to the UV torch's compact design, Internal temperatures were a critical consideration when selecting the gasket material. The internal temperatures would not exceed kSil<sup>®</sup> GP 60's wide temperature range of -60°C up to +230°C, meaning the gasket would be unaffected by the internal temperatures.

After testing the material in application, the customer was assured that kSil<sup>®</sup>GP60 provided the performance needed and selected the material for the project. They considered kSil<sup>®</sup>GP60 an effective seal to protect the electronics within the UV handheld unit.

Please find out more about our **Lighting applications here**, link to the page.

# Lighting

Silicone Solid Gasket



Handheld UV torch