Advantages of FloppyFlex Silicone

Why is Silicone such a versitile meduim?

FloppyFlex Silicone is an injection molded thermosetting material which encapsulates the LED PCB and other components inside the FloppyFlex. Thermosetting refers to the process by which the silicone is cured to a permanent form which will never alter shape. Silicones are used in a variety of industries, but their properties are especially useful for electronics and LED lighting technologies.

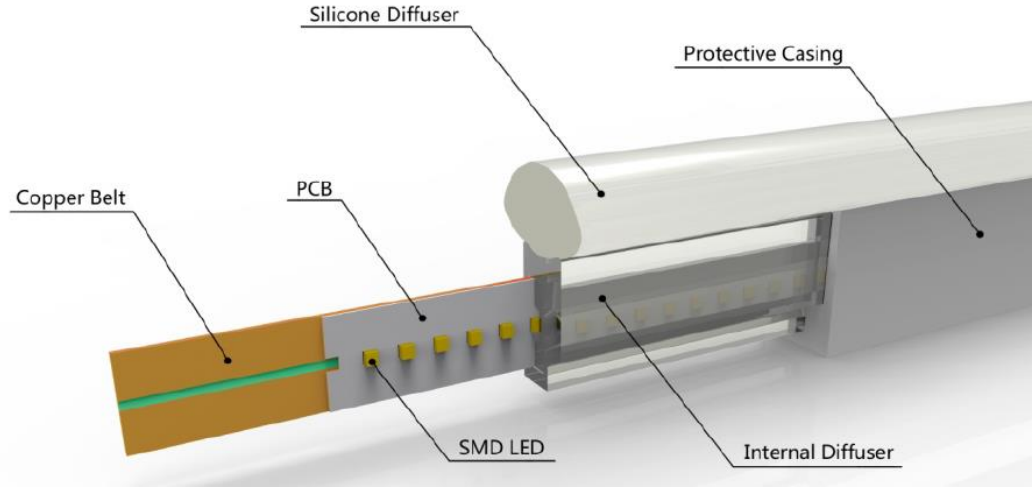
Some beneficial properties of FloppyFlex Silicone include:

TEMPERATURE RESISTANCE	Operating temperatures cover a wide range of extreme cold to scorching heat 40 ~ 131˚F (-40 ~ 55˚C)
UV RESISTANCE	Excellent ultraviolet radiation and ozone resistance can withstand the sun for years with insignificant discoloration to the lighting surface
HYDROPHOBIC SURFACE	Has relatively low wettability and water adhesiveness, resulting in a lighting surface which is "self -cleaning"
ENHANCED FLEXIBILITY	Silicone is extremely flexible while maintaining durability
ELECTRICAL RESTISTANCE	Excellent dielectric properties make it a very useful material to use with LEDs

FloppyFlex Silicone internal construction

While the inherit properties of silicone lend various improved properties to the FloppyFlex technology, these products also benefit from various structural design improvements. The PCB circuit design uses cylindrically shaped components around LEDs which can mechanically protect LEDs by prevent any shearing when the FloppyFlex is bent.

Under the LED PCB is a tinned copper belt which allows for much better conductivity and less voltage drop through the length of the product. With the addition of copper belting, we can see extended run lengths and better heat dissipation along the run. Copper Belting makes a physically stronger and more robust product that along with silicone casing, helps the user avoid PCB breakage from mishandling.



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