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Robotically Dispensed In Place Gaskets / Seals

A paper on Bekmar Corp. stacked offset FIPG capabilities

Bekmar Corporation has been dispensing gaskets directly onto production parts since 1997. Our patent pending Stacked Offset DIPG has solved many sealing issue for our customers. A soft compliant gasket is often required to seal against water ingress, temperature extremes, harsh chemicals, EMI/RFI etc. Our Stacked Offset configuration creates the widest compression range and lowest compression force possible in FIPG. Bekmar Corporation achieves this by means of proprietary methods we developed in 1999. The offset direction can face in or out depending if you want to keep liquid in or out. There are many other 3D gasket configurations possible.

Shown below is a section of a transport tube for complex delivery systems used in hospitals, banks, large buildings etc. The picture is showing the gasket stacked offset shape. Only the bottom edge of the gasket is adhered onto the part. The other portion is angled upward from the surface of the tube. This gasket will compress with just the weight of the other half tube, meeting one of our customer requirements.

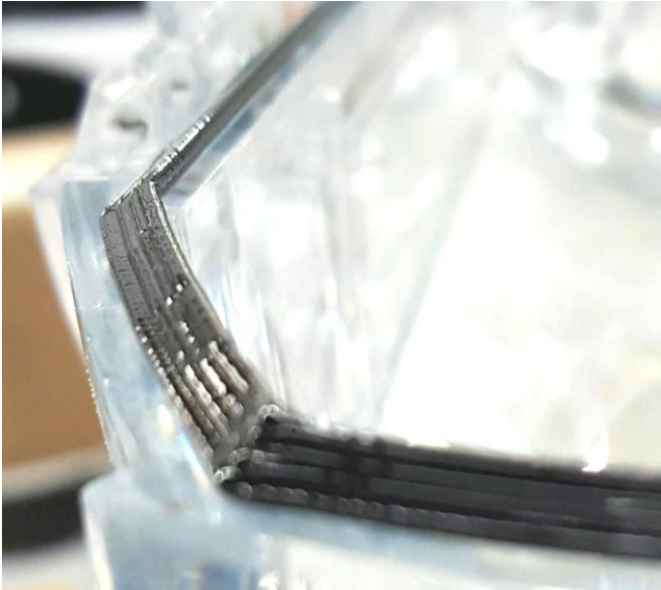


The main objective for this gasket application is to keep liquids contained in the event any bag breaks during high speed and over 200 g's shock transport. The gasket must retain the liquid inside the tube. This application the gasket must have a sealing range of .118" (3.0 mm) without leakage of 1 liter of water while being shaken aggressively. Bekmar achieved this on the first pass.

Bekmar engineered this application and applied it within 2 days, then re assembled & shipped to our customer with 1 liter of water inside. They received the part and could not believe that it arrived without any leakage. They have had leakage problems for several years due to the old gasket method they were using.

The adhesion of our silicone material is stronger than the material itself. No features are required on your part when using Bekmar FIPG process. A flat or 3D contoured flat surface is the only requirement and we can apply your gasket. Bekmar can dispense your high performance gasket onto walls, inside cylinders, any orientation.

100% of our gasket applications are visually inspected and monitored. We offer leak rate testing where each FIPG gasket is tested and proven to meet your functional requirements.

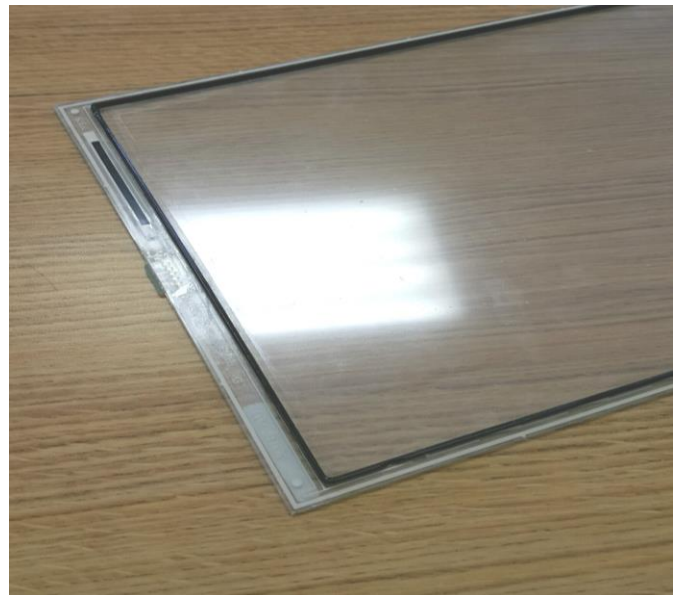


This picture is magnified so you can see the detail of our addition manufacturing expertise. The silicone can have a high durometer and tensile strength but maintain a low compression force. Your gasket can even have different heights and widths. Enclosures that are opened from time to time (battery compartment door) or doors that open and close many times per day (vacuum tube) are an ideal fit for Bekmar's Stacked Offset technology. Very low closure force or custom adjusted force to meet extreme environments such as outdoor utility boxes.

Another offset stacked gasket is used for sealing touch screens that must be water tight when assembled.

Historically foam strips from a roll are cut and glued onto the back of the screen. This can make for an unreliable product costing your company \$.

By having your gasket applied by Bekmar Corporation you are ensuring your products performance for many years to come.



We look forward to helping you achieve your products full potential.