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BME 181 Vetter

SILICON MOLDING

I decided to do my project on silicon molding. Medical grade silicone has properties that demonstrate superior compatibility with human and animal tissue and body fluids. It is an inert material and can be used with implantable devices and it can withstand extreme temperatures allowing it to be used in sterilization environments. Medical grade silicone is soft and pliable making it ideal in contact with human skin. Injection molding of medical grade silicone is cost efficient for high volume or single-use applications. Medical grade silicone can be used in gum form and compression molded for low volume requirements. Medical silicon molding can be used in general surgery, bariatric surgery, plastic surgery, ophthalmology, orthopedics, neurosurgery, cardiology, oncology, and ear, nose, and throat procedures. Using silicon molding allows for high volume producing of any mold which makes for huge availability and a quick sustainable product. I will introduce the process of making a silicon mold and also what products are being created most often. I will also mention some big name companies using silicon molding and making the silicon molds for medical uses. Due to the fact that silicon is extremely available, easy to work with, and has very unique properties that make it perfect for medical procedures and devices with most importantly allow for inexpensive procedures. As the technology for the molding devices gets more advances and accurate, we will see a more emphasis on doctors recommending silicon as a viable and inexpensive fix to complicated problems. The future of silicon molding is just beginning and has the ability to prosper