

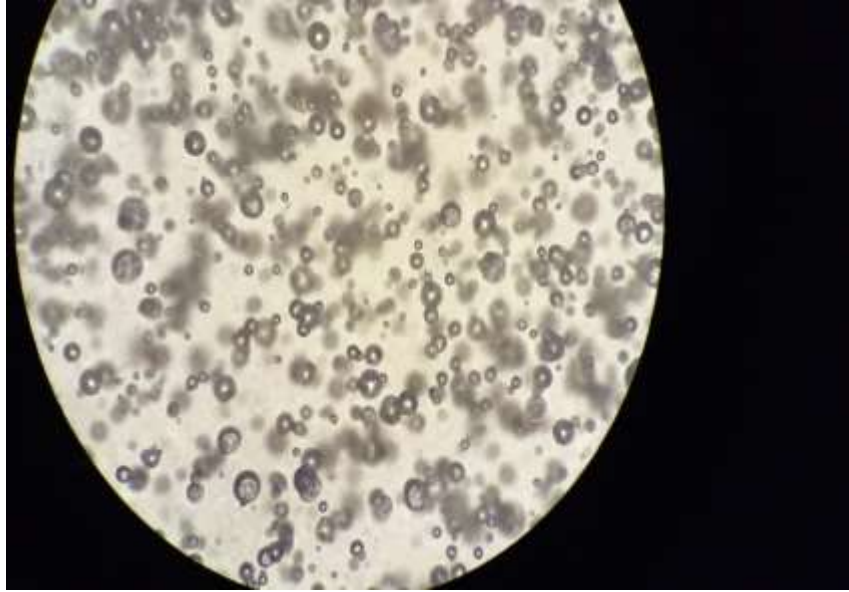


Figure 1. The optical image of the porous structure of the silicone adhesive layer with adding the DW

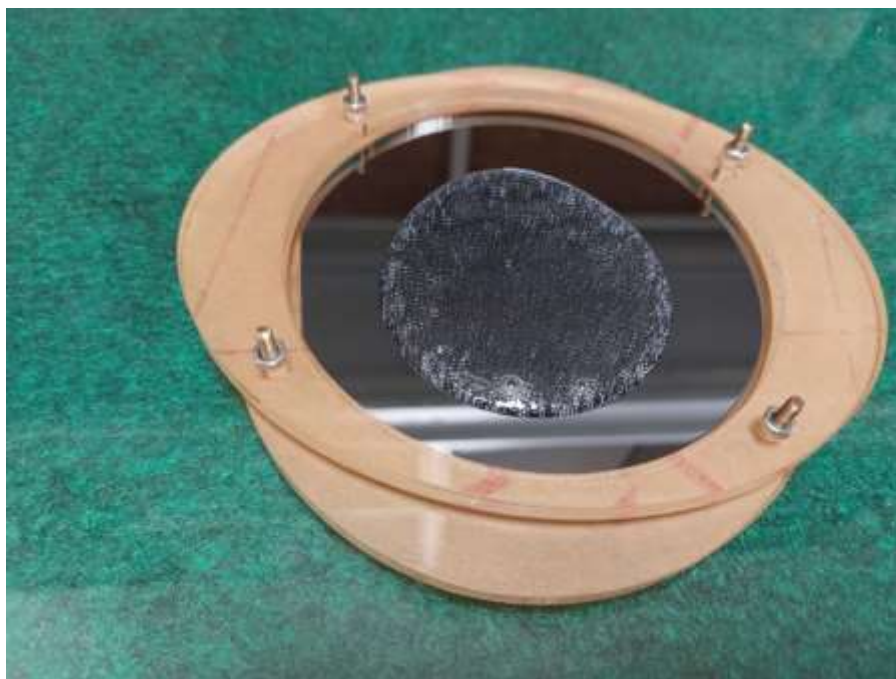


Figure 2. The liquid silicone was poured onto a silicon wafer for curing. The silicon wafers are in the Plexiglass



Figure 3. The 1 mm silicone layer after punching



Figure 4. The silicone layer separation from greaseproof paper

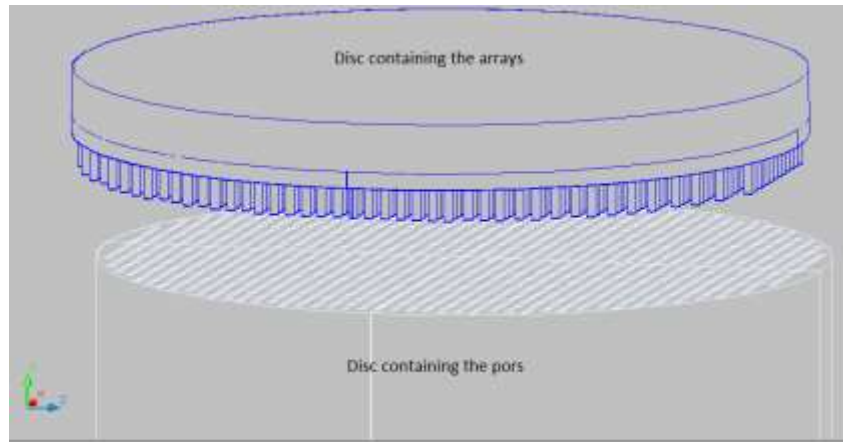


Figure 5. The disk containing the arrays is matched to the disk with pores

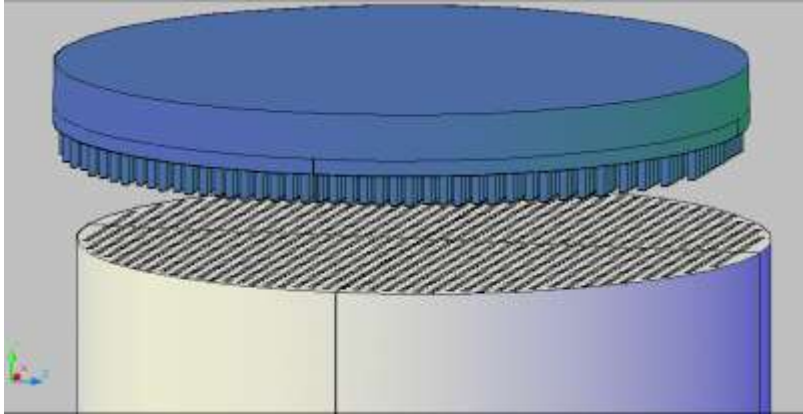


Figure 6. The disk containing the arrays is up and the disk containing the pores is down

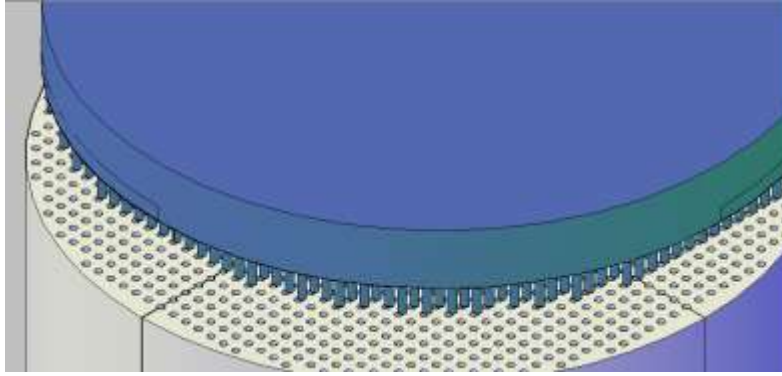


Figure 7. The upper view of both disks. Arrays get into the pores

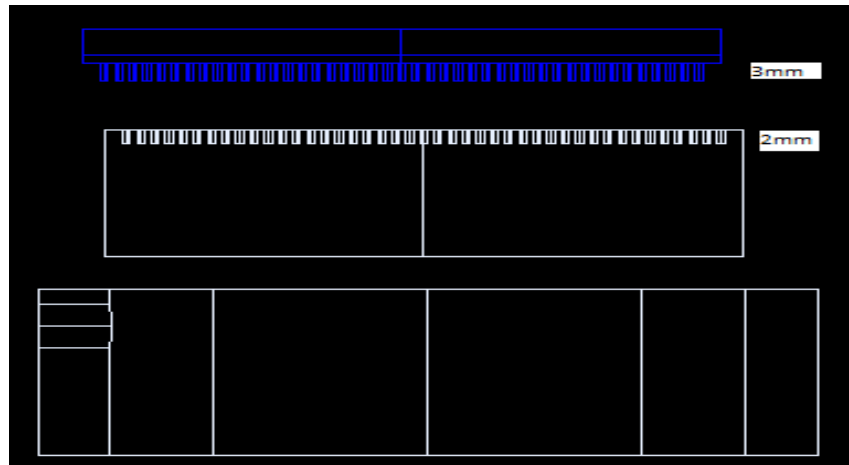


Figure 8. Three parts of a mold. The upper is the disk with 3mm arrays. In the middle is the disk with 2mm pores. The down is the external part of the mold which both disks get into it

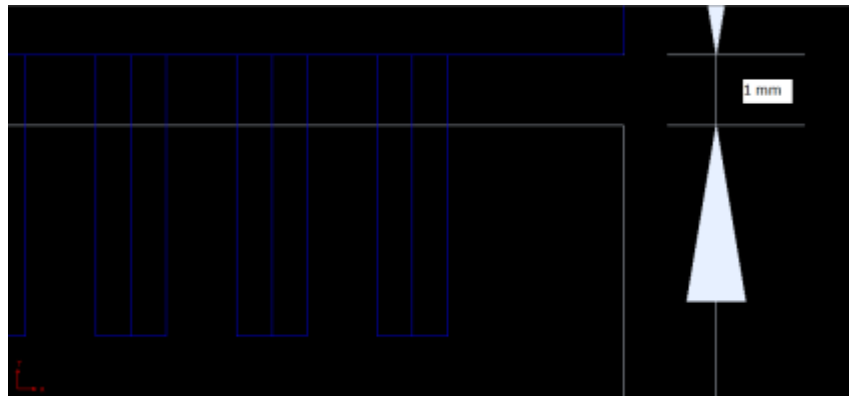


Figure 9. The closer view of arrays and pores which shows the mold gives the 1 mm silicone film

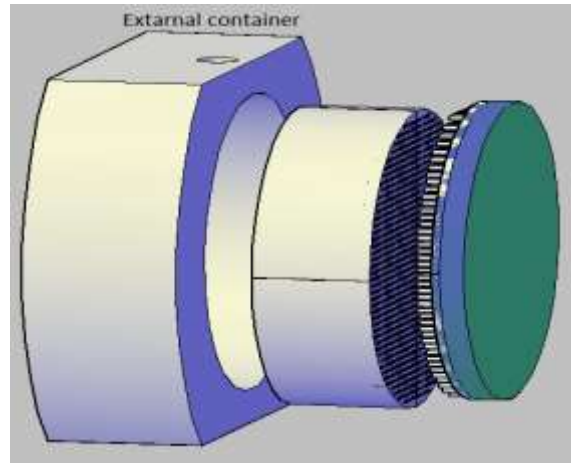


Figure 10. The complete mold is designed for silicone layer synthesis. There is a hole in the upper part of the external container which is special for soft liquid polymer injection

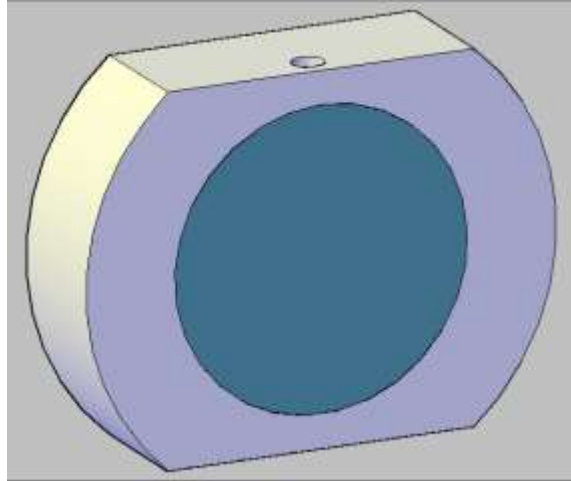


Figure 11. The side view of mold which is ready for injection of liquid polymer. Both disks are put into the external container

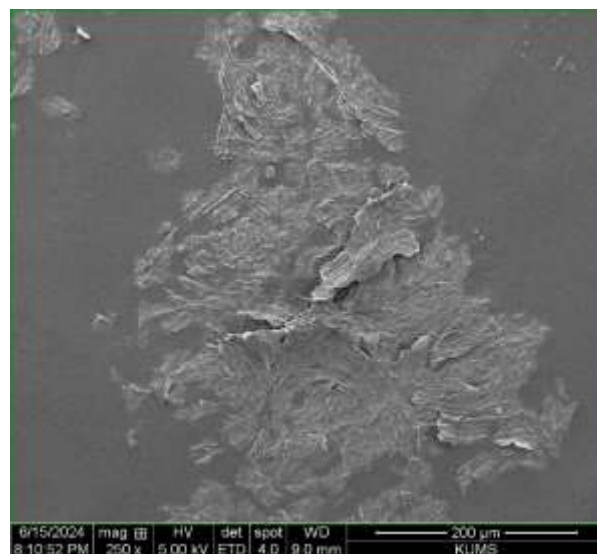


Figure 12. The SEM image of common tape after separation from the finger which is a sign of a fingerprint pattern is also obvious

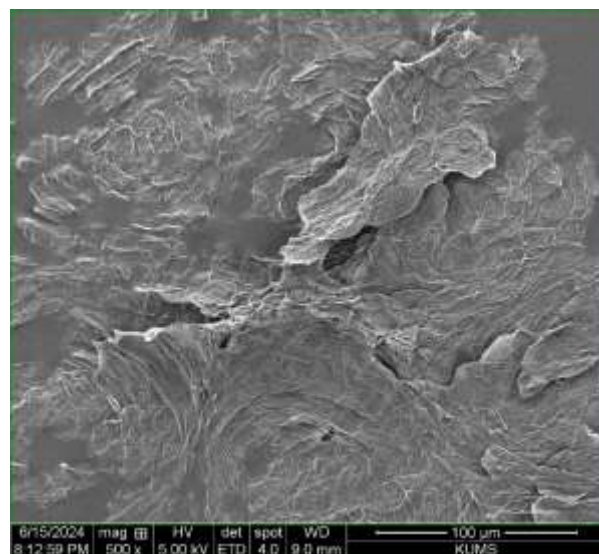


Figure 13. The closer view SEM image of fingerprints in common tape

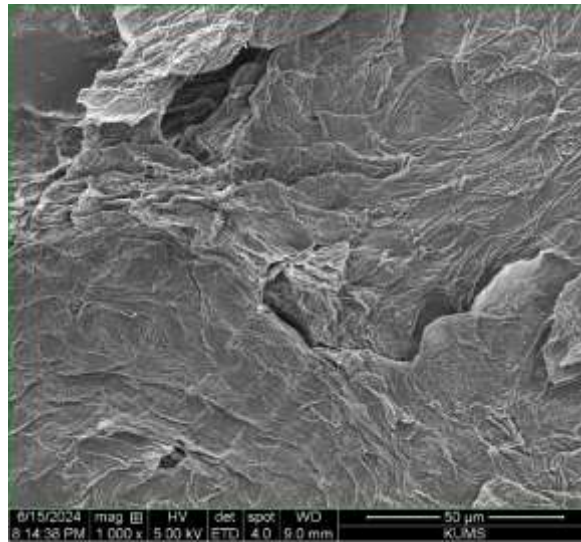


Figure 14. The SEM shows the emergence of skin cells on the fingerprint after the separation of common tape

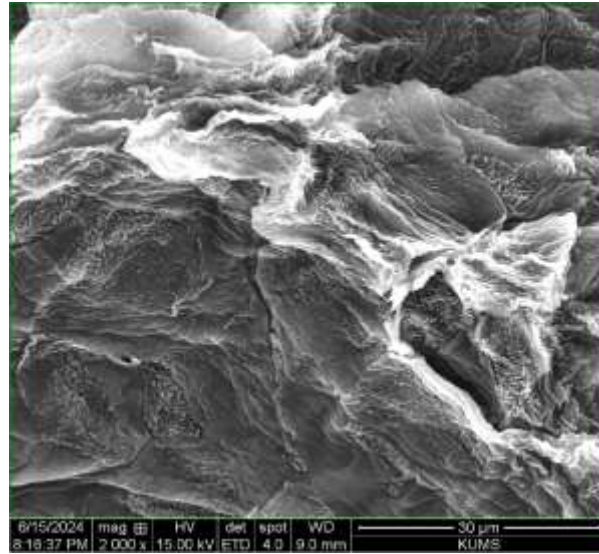


Figure 15. The SEM of common tape separation from the finger which skin cells are obvious on it

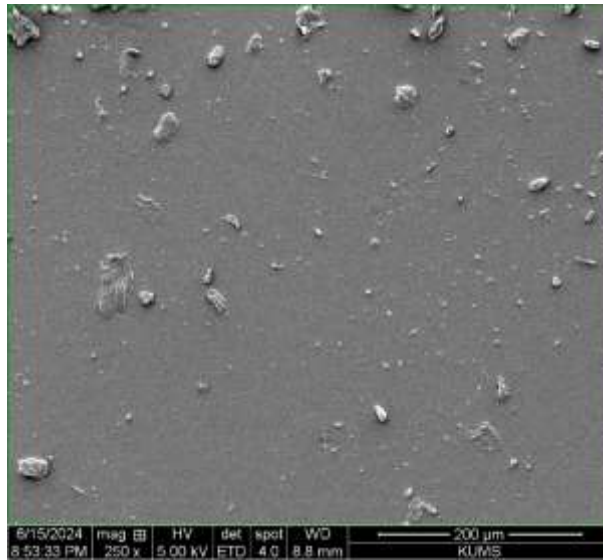


Figure 16. The SEM image of Mepilex after separation from the skin. There are no cells on its surface. Only the contamination is viewed

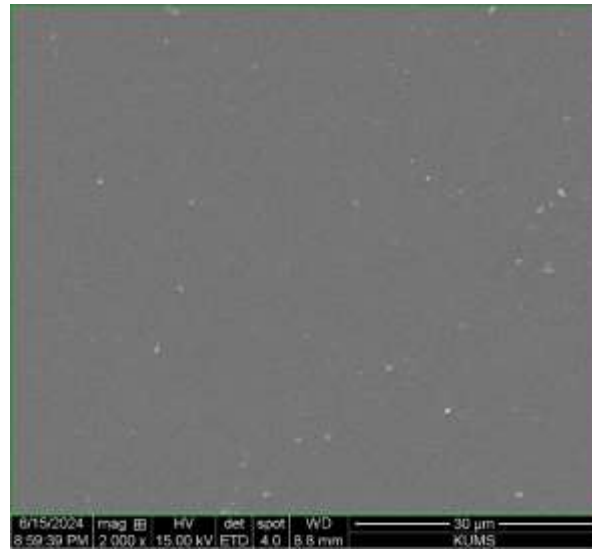


Figure 17. The SEM image of our silicone layer after separation from the skin surface. There are no cells on its surface, only the dust particles