

Five Important Steps in Prepping a Screen

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Though it may not be rocket science, prepping a screen for screen printing involves a few different variables. You must make special considerations for factors like mesh count, diameter and more if you want your printing efforts to yield acceptable results. Following are five considerations that are very important to effectively prep a screen that will enable maximum results when you're printing.

1. Select the proper mesh count: The proper mesh count will help to determine the amount of ink that is deposited on the substrate onto which you are printing. Choose low mesh counts for special-effects inks such as glitter (25-40 mesh), reflective or puff-type inks (110-125 mesh). Choose high mesh counts (200-305) for more detailed or soft-hand prints.

2. Select the desired mesh thread diameter: A thinner thread diameter for any given mesh count will reduce the overall fabric thickness of the mesh and allow more ink to be deposited onto the substrate due to lower flow resistance and larger open area. The thinner thread diameter results in larger mesh openings and, thus, makes printing easier. This becomes important when a clean, crisp image or detailed design is desired, as the thinner thread diameter provides a smoother surface to which the stencil can adhere.

3. Make sure your screen frames are clean, straight and level: Properly cleaned and leveled frames will help ensure that the printed image comes out crisp and clear. Personally, I prefer metal frames to wood, since metal frames last longer, resist warping and splintering and tend to hold the mesh tension longer. In addition, I also prefer retensional frames, since the mesh tension can easily be tightened or adjusted.

4. Tension the mesh properly: Follow the manufacturer's instructions for the ideal tension recommended for the specific mesh being used. Make sure the tension is equal in both warp (lengthways) and weft (crossways) to achieve uniform mesh openings. Once the ideal tension is achieved (measured in Newtons with a tension meter), tension the mesh in the frame, let it sit and then retension again if needed. Mesh often will stretch a little after the first tensioning, hence the fact that letting it relax and then recalibrating the tension will more accurately achieve the ideal tension desired.

5. De-haze and degrease both sides of the mesh: De-hazing removes ghost images of previous designs, ink stains and other impurities that may have accumulated on reused mesh. Although it may not be necessary to de-haze each time a screen is reclaimed, depending on how much detail the next design requires, it is a good idea to de-haze periodically, perhaps after two or three jobs.

Degreasing is an important step before applying emulsion to the screen to remove oils, dust, fingerprints, and other grime that may have settled on the mesh. This step can improve the adhesion of the emulsion and prevent pinholes and other imperfections, which may show up if the emulsion is applied over dirty mesh. I recommend degreasing as a mandatory step in prepping the screen prior to applying emulsion. After degreasing, keep frames in a dust-free environment until they are ready to be coated.

One last tip: Always consider the manufacturer of the products you are using as a resource that can help answer any questions or concerns regarding its products.

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