

Silicone Surface Technology

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To Whom It May Concern:

The surface of Silicone rubbers is typically quite tacky, particularly the softer grades. Sometimes this can present problems in an end user's application. However, there are several ways to reduce this tackiness and reduce the coefficient of friction.

The simplest way is through the addition of talcum powder, wiping this uniformly across the product's surface. While this option is very effective and carries no extra cost, there is the possibility of the talc being washed off. In some applications, talc is considered a contaminant.

A more permanent solution is achieved by applying a special fluorination treatment. Products are placed in a chamber and a chemical reaction is performed, changing the surface properties of the Silicone without changing any of the physical characteristics. The resulting smooth silky feel of the Silicone is not, with this technique, simply a coating, but is a part of the product itself and therefore retains reduced friction for a useful lifetime. Dirt and dust attraction is also significantly reduced.

Unfortunately, this fluorination process must take place with a third-party company in Germany, and therefore this process carries shipping costs and minimum order quantities.

A third option is applying a LSR (Liquid Silicone Rubber) Topcoat. This proprietary liquid silicone coating technology yields the best results when sprayed onto the product. While this option is considered mid-range in terms of cost, it is not suitable for more mechanically wearing applications. This is because (unlike with fluorination) this method only gives the silicone a superficial coating, not penetrating beneath the skin.