

Expanded Silicone Sponge Rollers



Introduction

Silicone rubbers are materials having an extremely stable cross linked structure being chemically related to quartz and glass. During vulcanisation, cross linking takes place to form a three dimensional flexible rubber-like substance. As with other kinds of elastomeric material the physical and chemical properties of silicone can be varied by the use of appropriate fillers and catalysts to provide a wide range of densities.

Nip Rollers, Cleaning Rollers & Toner Adder Rollers

BMP manufactures a range of expanded silicone sponge rollers which are used in a variety of applications from paper guidance in office equipment, through to toner adder rolls and pressure/nip roll applications in Xerographic printing equipment. BMP's expanded silicone material has a fine closed cell structure encapsulated by a smooth and resilient outer skin to give a low degree of moisture absorbance whilst offering a wide continuous service temperature range of -50 to $+200^{\circ}\text{C}$. Silicone rubber can also be used as a substrate in specialist rollers used in photocopiers, where an outer layer of high temperature needlefelt is wrapped around the silicone sponge. In applications where a highly accurate outer diameter is required, BMP is able to surface grind silicone sponge rollers to within a tolerance of $\pm 0.25\text{mm}$.

Expanded Silicone Rubber Properties

- Excellent resistance to UV, corona, arcing & ozone
- Extremely low oxidation
- Minimal moisture absorption
- Excellent resonance damping
- Wide in-service temperature envelope
- Low compression set



Fluid Delivery



Filtration



Media Transport



Heat Resistance



Abrasion



Sealing



Absorption



Cleaning