

## 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