

Silicone Rubber

SafSil[®] is gaining acceptance as a functional filler of choice to help reinforce silicone rubber. The unique properties of SafSil[®] pumice allow it to replace ground silica, feldspar, and nepheline syenite as the functional filler of choice in silicone rubber systems. Historically, ground silica has been the workforce filler of choice for silicone rubber.

Rheometer data, as measured by ASTM D 2084, indicates that SafSil[®] cures slower than ground silica, which is an advantage with silicone rubber customers seeking slower cure time or increased scorch time. The higher pH of SafSil[®] is also beneficial.

Unaged Physical Properties, when evaluated by ASTM D 412, show that SafSil[®] contributes a good balance of tensile, elongation, and modulus properties. Aged properties evaluated after 70 Hrs. @ 200°C, according to ASTM D 573, show that the percentage tensile change of SafSil[®] silicone rubber systems are superior to the ground silica systems.

Fluid Aged Physical Properties (ASTM D 471) of SafSil[®] silicone rubber systems are also superior to those of ground silica systems, as the percentage change in tensile and elongation is less than in ground silica systems, with an equivalent change in Durometer Shore A hardness.

The Compression Set performance, when measured by ASTM D 395, Method B, is very similar between SafSil[®] systems and ground silica systems.

Since SafSil[®] has a lower Mohs hardness than ground silica, SafSil[®] reduces wear on equipment used in silicone rubber manufacture.

The pound/volume relationship for SafSil[®] is also a benefit compared to ground silica. The specific gravity of SafSil[®] is 2.34 while that of ground silica is 2.65. This means that a pound of SafSil[®] will fill the same volume as 1.13 pounds of ground silica, providing a significant cost performance advantage.



Additional Information at www.CRMinerals.com

To place an order or obtain additional information, please contact CR Minerals at 505-428-2940, or contact your local distributor.

CR Minerals is a worldwide supplier of pumice products to many diverse markets. It operates a state of the art processing facility in Ohkay Owingeh, New Mexico.

Although the information and suggestions in this publication are believed to be correct, CR Minerals makes no representations or warranties as to the accuracy or completeness of this information.