SUNSPHERES™ 03.0

DESCRIPTION

SUNSPHERES™ 03.0 are optically clear, solid fused amorphous silica microspheres specially engineered for optimum dispersion in paints, coatings, inks, adhesives, thermoplastics, and composites. These microspheres increase corrosion and impact resistance, reduce shrinkage, improve adhesion, and enhance surface qualities including mar and scratch resistance. SUNSPHERES™ 03.0 are ideally suited for specialty applications where mechanical and rheological properties are required.

The dielectric properties and very high electrical receptivity of these materials over a wide range of temperatures, together with their low thermal conductivity, allow their use as an electrical and thermal insulating material in a range of environments. SUNSPHERES™ 03.0 are chemically stable in a vast range of resins and pH.

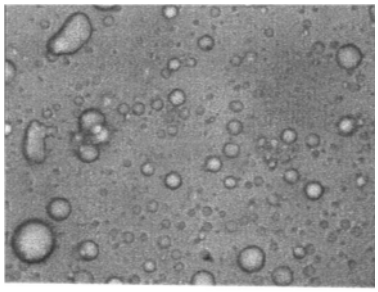
LIGHT TRANSMISSION:

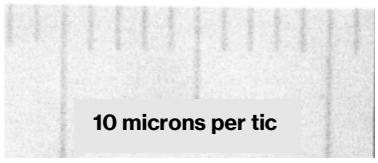
The SUNSPHERES™ 03.0 efficiently transmit ultraviolet and visible light from 200 nanometers through the visible and near IR spectrum. These microspheres space pigments and promote efficient, thorough curing by ultraviolet radiation.

SIZING & USE:

SUNSPHERES™ 03.0 have a median particle size of 3 to 4 microns, with a particle size range of 0.5 microns to 92% passing 22 microns. Recommended dosages are 3 to 50% by weight of total weight of formulation. Due to their low surface area, SUNSPHERES™ 03.0 are easily dispersed.

Each Tic Mark is .01 mm or 10 Microns





TYPICAL PARTICLE SIZE ANALYSIS*:

Median Diameter Approx. 3.0 Microns

Microns	% Passing
22	92.0
11	73.0
5.5	50.0
2.75	20.0
1.375	2.0
0.50	0

Shape: Solid, Spherical to Well Rounded Microspheres

PHYSICAL & CHEMICAL PROPERTIES*:

Specific Gravity	2.2
Index of Refraction	1.458(n_D)
Softening Temperature	>1000°C
Strain Point	>600°C
Coefficient of Thermal Expansion	0.48 x 10^{-6}/K
DC Resistivity	1 x 10^{8}
Hardness (Mohs) Scale	7.0
BET Surface Area (sq.m/g)	1.3 – 2.2
Oil Absorption	<10
pH	5
Structure/Amorphous SiO2	>99%
Crushing Strength	>60,000 psi

*Copies of actual COA's listing actual measured values of data shown above are available upon request.

See reverse side for additional information

NORTH CANTON, OHIO 44720
DIRECT TELEPHONE: 330.499.7010

FOR SAMPLES & CUSTOMER SERVICE, CONTACT MARY ZINK
TEL: 330.327.2997 or mzink@suncolorcorp.com

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