

## Silspher P2/PS2 Series

Patent No.: ZL 201510781190.X

INCI Name: Silica

Product Name: Spherical Porous Silica

Silspher - Spherical Porous Silica, from high quality silica resource, gone through precipitation method, as a functional powder filler and additive, it can meet many demanding applications. High hardness and resistance to scraping, stable chemical properties, impact resistance and water resistance, high weather resistance, fricative index is close to resin can be made of high transparency materials, high rate of spheroidization, increase the filling rate on the parts, low density particles reduce the weight of parts, reduce cost and increase product performance. Widely use in copper clad laminate, electronic packaging, LED, inks, adhesives, paints and coatings, absorb release carrier, catalyst carrier, filling chromatographic column.

### Product Parameters:

Appearance: (visual inspection)	White powder
Particle size D50 (Laser particle size analyzer, um):	3、5、8、12
pH value (2% water dispersion, direct method of measurement):	5.0-9.0
Loss on drying (% , 105°C, 3hrs):	≤2

### Product Specifications:

Product Name	D 50 Mean Particle Size ( $\mu\text{m}$ )	Oil Absorption (ml/100g)	Dispersion Property
Silspher P23	3	110 ↙ 80	Common use
Silspher P25	5		Common use
Silspher P28	8		Common use
Silspher P212	12		Common use

### Product with Surface Modifications:

Product Name	D 50 Mean Particle Size ( $\mu\text{m}$ )	Specific Surface Area ( $\text{m}^2/\text{g}$ )	Dispersion Property
Silspher P23	3	130 ↙ 110	Oil dispersed
Silspher P25	5		Oil dispersed
Silspher P28	8		Oil dispersed
Silspher P212	12		Oil dispersed

## Product Features and Applications:

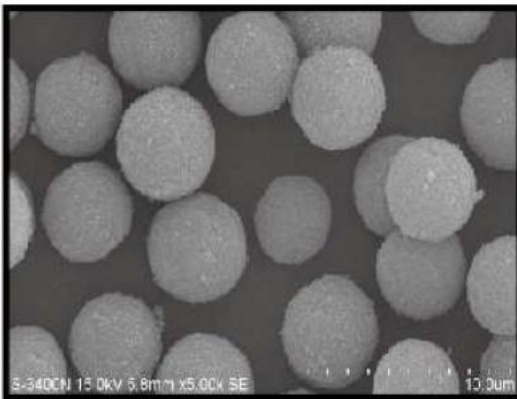
### Features:

- 1) Spherical white powder, high rate of spheroidization, odour free.
- 2) Strong liquidity, excellent smoothness, low stress.
- 3) 99.9% high purity silica, metal impurity and magnetic ion content is low 100ppm.
- 4) The porous structure, high porosity and volume, low specific surface area, excellent absorption, significant effect of release.
- 5) Chemical stability amorphous structure, uncrystalline state non-radioactive element, poisonless and tasteless, high temperature resistance, chemical resistance, resistance to acid and alkali, weather resistance is stable.
- 6) A variety of particle size, particle size is uniform, narrow size distribution.
- 7) Low permittivity, low loss, low expansion, thermal conduction.
- 8) Refractive index is about 1.5, close to most resin refractive index (1.4 - 1.5), used for rubber, coating, adhesive, LED lamps and other products, high light transmittance.
- 9) Mohs hardness is 6, impact resistance, scratch resistance and friction resistance.
- 10) Variety of choice of modified surface, excellent dispersion performance.
- 11) Spherical structure, spherical porous, easy to scatter, absorb light extinction effect is obvious.

### Applications:

- 1) Electronics industry: copper clad laminate, electronic packaging, LED
- 2) Filling chromatographic column
- 3) Inks, adhesives, paints and coatings

## Scanning Electron Microscopy:



二氧化硅扫描电镜图  
SEM image of Silica

# Technical Data Sheet

Version: EN 1.0

## Storage Information:

Manufacture area:	China
Packing:	25 kg/barrel
Storage:	Sealed and stored in a cool and dry place away from light
Shelf life:	36 months

Date:2020/10/30