

# **CARPLEX®**

Precipitated Silica

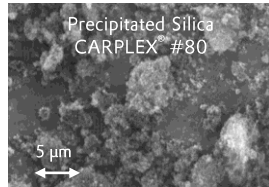


## CARPLEX® Over View

### Precipitated Silica Standard Milled

CARPLEX® #67, #80, #80QM, #101, #1120

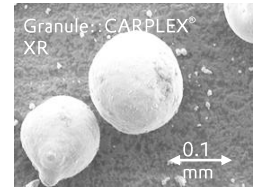
Milled silica particle  
10 – 15 micron



### Precipitated Silica Granule

CARPLEX® XR

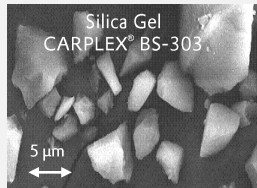
Spray dried granule  
100 micron



### Silica Gel Milled

CARPLEX® BS-303, BS-306, BS-308N, BS-510BX

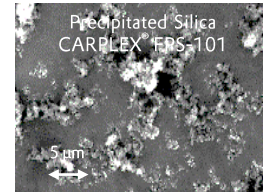
Standard milled silica gel  
10 – 24 micron



### Precipitated Silica Fine Milled

CARPLEX® FPS-1, FPS-2,  
FPS-101, FPS-101M, FPS-500

Fine milled and classified  
5 – 7 micron

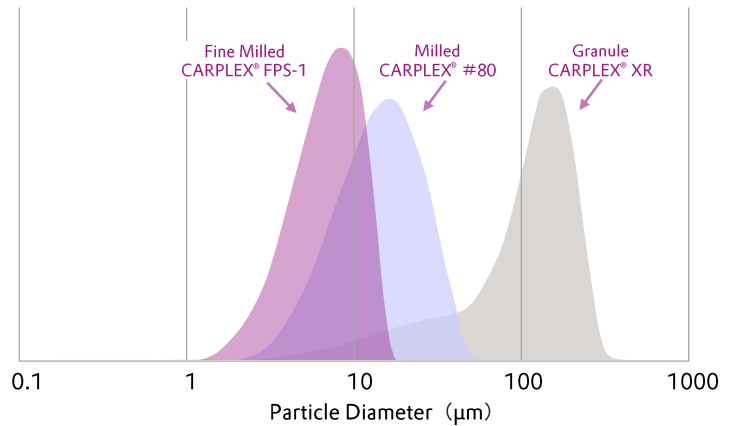


### Precipitated Silica Calcined & Fine Milled

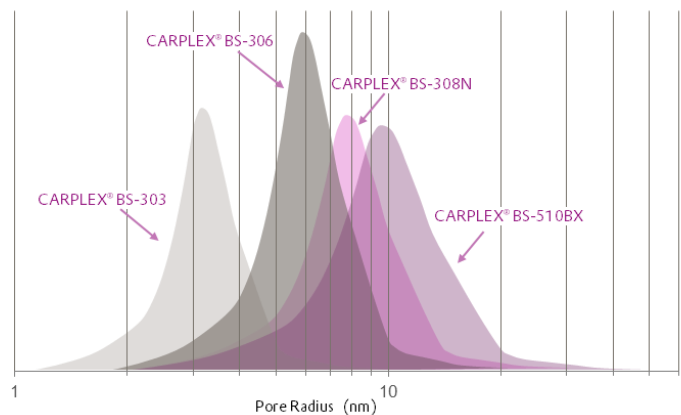
CARPLEX® CS-5, CS-7, CS-8

Heat treated calcined fine particle, classified. 5 -7 micron.  
Low water content.

## Silica Particle Size

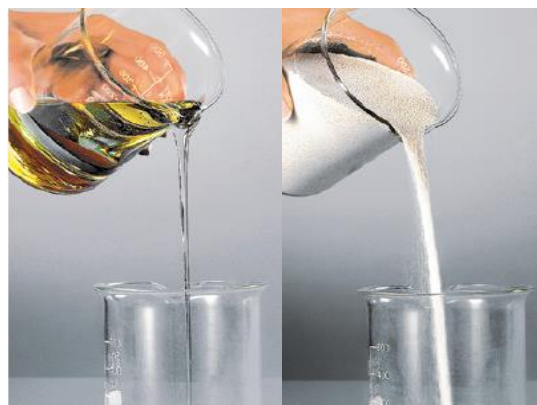


## Silica Pore Distribution



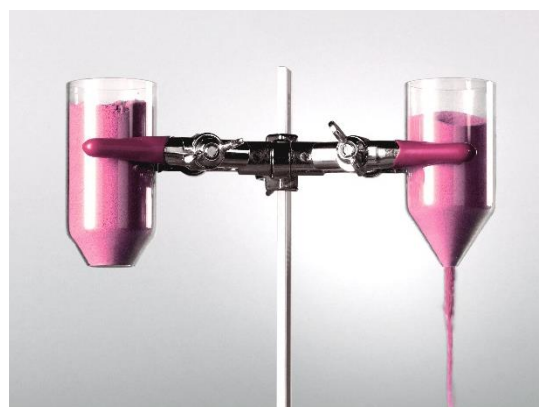
## Product Characters

Application		Milled Particle				
		Standard Pharmaceutical Excipients Quasi Drug		Quasi Drug	Standard	
Product		CARPLEX® # 67	CARPLEX® # 80	CARPLEX® # 80QM	CARPLEX® # 101	CARPLEX® # 1120
Surface Area (BET)	m <sup>2</sup> /g	380	200	200	260	120
Oil Absorption (DOA)	ml/100g	225	245	245	150	220
Particle Size (D50 Laser)	μm	11.5	15.0	9.5	10.0	12.0
Particle Size (D50 Coulter)	μm	7.5	8.0	8.0	7.0	9.0
Tamped Density	g/L	140	145	100	195	170
Loss on Drying	%	7.1	6.6	5.0	6.0	6.5
Loss on Ignition	%	5.2	4.5	4.5	5.0	5.1
pH		7.6	5.9	5.9	6.5	11.0
Electrical Conductivity	μS/cm	232	66	66	30	1080
Package size	kg	15/20	15/20	20	20	20



## Product Characters

Application		Fine Milled				Food Additive
		Standard				
Product		CARPLEX® FPS-1	CARPLEX® FPS-2	CARPLEX® FPS-101	CARPLEX® FPS-101M	CARPLEX® FPS-500
Surface Area (BET)	m <sup>2</sup> /g	200	240	260	260	190
Oil Absorption (DOA)	ml/100g	255	260	140	155	-
Particle Size (D50 Laser)	µm	7.0	5.0	-	7.4	-
Particle Size (D50 Coulter)	µm	2.3	1.8	1.6	2.8	2.5
Tamped Density	g/L	75	70	175	170	90
Loss on Drying	%	6.0	6.0	6.5	6.0	5.5
Loss on Ignition	%	4.5	4.6	5.0	4.8	4.5
pH		5.9	6.0	6.5	6.5	6.0
Electrical Conductivity	µS/cm	73	66	18	20	-
Package size	kg	10	10	10	15	10



## Product Characters

Application		Fine Milled Calcined			Granule
		Standard			Standard
Product		CARPLEX® CS-5	CARPLEX® CS-7	CARPLEX® CS-8	CARPLEX® XR
Surface Area (BET)	m <sup>2</sup> /g	160	130	130	180
Oil Absorption (DOA)	ml/100g	240	230	240	240
Particle Size (D50 Laser)	µm	5.5	6.0	8.5	125
Particle Size (D50 Coulter)	µm	2.5	3.0	4.6	-
Tamped Density	g/L	90	90	100	255
Loss on Drying	%	1.4	1.0	1.0	4.0
Loss on Ignition	%	0.8	0.7	0.6	4.5
pH		5.0	5.8	5.8	6.2
Electrical Conductivity	µS/cm	22	38	35	40
Package size	kg	10	10	10	20



## Product Characters

Application		Silica Gel			
		Standard		Food Additive	
Product		CARPLEX® BS-308N	CARPLEX® BS-510BX	CARPLEX® BS-303	CARPLEX® BS-306
Surface Area (BET)	m <sup>2</sup> /g	295	290	565	355
Oil Absorption (DOA)	ml/100g	215	240	130	160
Particle Size (D50 Laser)	µm	10.0	10.5	14.0	24.0
Particle Size (D50 Coulter)	µm	7.7	6.7	-	-
Tamped Density	g/L	200	160	400	370
Loss on Drying	%	5.0	4.0	4.0	4.0
Loss on Ignition	%	5.0	4.0	9.0*	8.0*
pH		8.1	8.5	5.0	6.0
Electrical Conductivity	µS/cm	100	100	400	350
Pore Radius	nm	8	10	4	6
Pore Volume	cm <sup>3</sup> /g	1.3	1.5	1.0	1.2
包装重量	kg	20/200	20/150	20/300	20/300

\* Sample based weight

### Analysis Method

Specific Surface Area	ISO 9277
Particle Size (D50 Laser)	ISO 13320
Particle Size (D50 Coulter)	ASTM C690
Tamped Density	ISO 787-11
Loss on Drying	ISO 787-2
Loss on Ignition	ISO 3262-1
pH 5% water slurry	ISO 787-9
Electrical Conductivity	ISO 787-14
DOA Oil Absorption	ISO 19246

The given data are typical values.

Specifications on request.

All data accurate at the time at which the product leaves the production site