

Product Information

SYLODENT® SM 500T
Precipitated Silica

Product Description

SYLODENT® SM 500T precipitated silica is flavorless and odorless synthetic amorphous silica appearing as a white free flowing powder. It meets the test requirements for silicon dioxide as described in the latest editions of the Food Chemicals Codex (FCC) and as described in the United States Pharmacopoeia/National Formulary (USP/NF) edition for Dental-Type Silica.

Product Characteristics

Property	Unit	Value	Test Method**	
Loss on Drying (105°C, 2h)	%	7.0 max.	GRA 87/60	(GRA 1702)
pH (5% aqueous suspension)		6.0-8.0	POT 87/61	(GRA 1200)
SiO ₂ + Na ₂ SO ₄	%	98.0 min.	GRA 81/61	
Electrolytes as Na ₂ SO ₄	%	3.0 max.	KON 83/60	(GRA 1405)
Silica as SiO ₂ in ignited product	%	97.0 min.	GRA 81/61	(GRA 1100)
Loss on Ignition, after drying (950°C, 1h)	%	8.5 max.	GRA 87/61	(GRA 1701)
Heavy Metals*	ppm	25 max.	Q 029	(GRA 1250)
Arsenic as As*	ppm	3 max.	Q 066	(GRA 1250)
Lead as Pb*	ppm	4.5 max.	Q 846	(GRA 1250)
Chlorides as Cl*	ppm	1000 max.	POT 94/01	(GRA 1231)

*Testing is performed on a quarterly basis in accordance with the IPEC-PQG GMP Guide for Pharmaceutical Excipients and confirmation is stated on the Certificate of Analysis.

**Test Method numbers in parenthesis (), refer to the North American cross-reference Test Method number.

Typical Properties

The following typical properties data are given for informational purposes only, and are not to be interpreted as product or in-process specifications.

Property	Unit	Value	Test Method**	
Compacted bulk density	kg/m ³	190	PHY 87/65	(GRA 1602)
Specific Surface Area (BET)	m ² /g	125	PHY 04/01	(GRA 1841)
DOA absorption (Brabender)	ml/100g	190	PHY 08/02	(GRA 1752)
Particle Size Average (Laser Cilas)	microns	13.5	PHY 84/61	(GRA 1506)

**Test Method numbers in parenthesis (), refer to the North American cross-reference Test Method number.

Recommended Applications

SYLODENT® SM 500T silica is a highly efficient toothpaste thickening agent which does not have significant abrasivity. SYLODENT® SM 500T silica has excellent compatibility with sodium fluoride and with sodium monofluoro-phosphate. It is normally used with SYLODENT® and SYLOBLANC® silica abrasives to achieve the desired toothpaste abrasivity and rheology. For best results, use at a concentration between 2% and 15% depending on the level of other ingredients in the formula, such as, the abrasive, water content, and humectant system components.

Product Information

SYLODENT® SM 500T Precipitated Silica

Packaging Information

SYLODENT® SM 500T precipitated silica is supplied in bags.

25 kg/bag 33 bags/pallet 825 kg/pallet one-way-pallet: 1000 x 1500 mm

Handling & Storage Recommendations

Like all other finely powdered products SYLODENT® SM 500T precipitated silica has a tendency to develop dust. During handling, precautions should be taken against electrostatic discharges. Additional information can be found in our Material Safety Data Sheet (MSDS). Storage in a dry warehouse is recommended. Open packages should be resealed to prevent contamination of the product. The material should be used within 24 months from the date of production.

Provided the storage recommendations are followed, silica stored beyond the recommended shelf life are typically fit for use. However, it is advised that a quality control test be performed on the properties relevant to the application.

Health & Safety Information

SYLODENT® SM 500T precipitated silica is synthetic amorphous silica. Full EHS information can be found in the Material Safety Data Sheet (MSDS). Please also refer to national laws and regulations.

ISO Certification

ISO 9001:2000 Registered

Other Information

The information contained herein is based on our testing and experience and is offered for the user's consideration, investigation and verification. Since operating and use conditions vary and since we do not control such conditions, we must **DISCLAIM ANY WARRANTY, EXPRESSED OR IMPLIED**, with regard to results to be obtained from the use of this product. Test methods are available on request.

World Headquarters

W. R. Grace & Co.-Conn.
7500 Grace Drive
Columbia, Maryland 21044 USA
Tel.: +1 410.531.4000
NA Toll Free: +1 800.638.6014
Fax: +1 410.531.4273

North America

W. R. Grace & Co.-Conn.
62 Whittemore Ave.
Cambridge, MA 02140 / USA
Tel: +1.617.498.4987
Fax: +1.617.498.4433
www.gracedarex.com

Latin America

Grace Brazil Ltda.
Rua Albion, 229-10 Andor
Lapa – Sao Paulo – SP/Brasil
05077 - 130
Tel: +55.11.3649.2704
Fax: +55.11.3649.2706

Europe

Grace GmbH & Co. KG
In der Hollerhecke 1
67545 Worms / Germany
Tel: +49.6241.403.00
Fax: +49.6241.403.1211

Asia/Pacific

Grace China Ltd.
1010 Huai Hai Zhong Road
19th Floor, K Wah Centre
Shanghai, 200031/ China
Tel: +86.21.5467.4678
Fax: +86.21.5405.1500

www.grace.com

GRACE®, GRACE DAVISON® and SYLODENT® are trademarks, registered in the United States and/or other countries, of W. R. Grace & Co.-Conn
Copyright 2009 W. R. Grace & Co.-Conn

Version: 07-Apr-2009
Page 2 of 2

GRACE