

SiO₂ Fibrous Adsorbent

TECHNOLOGY

Silica fibrous material produced by centrifugal spinning is a special functional material with unique properties. It can adsorb 40 % more water than classical silicagel. In addition it can also harmful organic compounds and heavy metals.

MATERIAL CHARACTERISTICS

specific surface area	600 – 900 m²/g
typical fiber diameter	800 – 1200 nm
fiber length	continuous*
fiber structure	amorphous
physical form	3D cotton or powder
most efficient in RH	40 – 60% RH

* Fiber can be milled down to several microns.

APPLICATIONS

Adsorbent I Catalyst carrier I Filtration Separation I Battery electrodes I Sensors

VALUE PROPOSITION

- adsorption capacity up to 40 % of its own weight
- 3D cotton-like structures
- no electrostatic charge, easy handling
- easy desorption at lower temperatures
- large industrial amounts available,

produced by Pardam, Ltd., www.pardam.cz

- spun solution:
 - o without any chlorine agents
 - o without toxic elements
 - o without surfactants

H₂O adsorption 25 °C, different RH



SiO₂ physical form cotton & powder



Centrifugal Spinning Technology



INVENTORS

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PATENT SITUATION

Czech patent granted CZ306370B6.

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