

## Silica – a manifold of solutions for plastics

Evonik. Power to create.



**AEROSIL®**

**AEROXIDE®**

**AERODISP®**

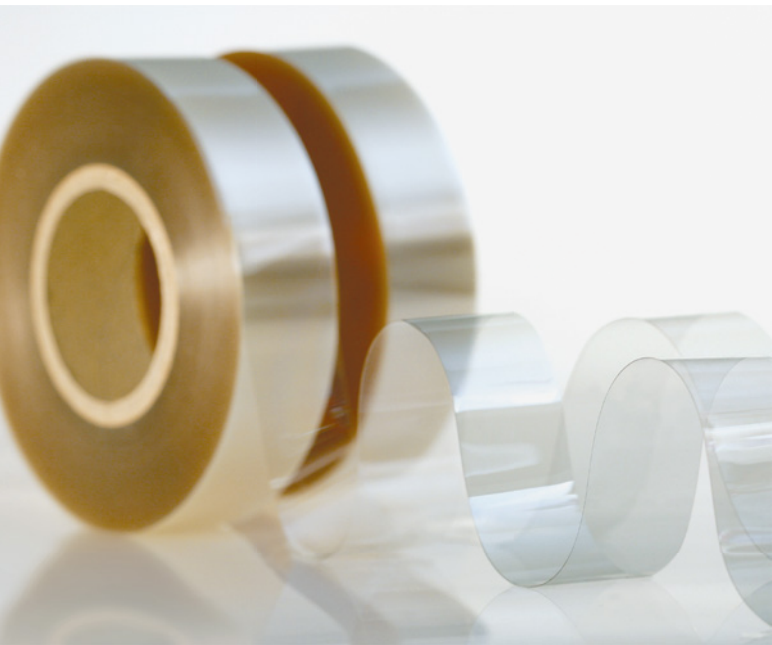
**ACEMATT®**

**SIPERNAT®**



## Literature

- AEROSIL® – Fumed Silica: Technical Overview
- AEROSIL® – Product Overview
- ACEMATT® – Matting agents for the coatings industry: Technical Overview
- Specialty Silica: Product Overview SIPERNAT®
- Antiblocking Agent SIPERNAT®:  
Technical Information 1206
- SIPERNAT® 820 A as an IR absorber in greenhouse film: Technical Information 1334
- SIPERNAT® specialty silica and AEROSIL® fumed silica as flow aid and anticaking agent: Technical Information 1351
- SIPERNAT® and AEROSIL® – an essential in industrial powder technology: Technical Information 1360



## What silica and metal oxides can do

### Effect

Antiblocking agent  
in polymer films

Products

Benefits

Matting of plastics  
(PE, PP, ABS, TPE)

Products

Application

IR Absorber in  
greenhouse film

Product

Benefits



#### Product recommendations / performance attributes

- SIPERNAT® 44 MS, SIPERNAT® 310, SIPERNAT® 880 (PE, PP, PVC)  
SIPERNAT® 350, EXP 5790-1 (PET, PA)
- AERODISP® G 1220, VP Disp G6020 X (PET synthesis)
- Low COF, high transparency, good dispersibility,  
low absorption of additives
- ACEMATT® HK 440, ACEMATT® OK 412  
SIPERNAT® 50 S, SIPERNAT® 310
- Incorporation in compound/masterbatch
- SIPERNAT® 820 A
- High thermicity/heat retention, high light transmission, high purity,  
low interaction with UV stabiliser

## What silica and metal oxides can do

### Effect

Reinforcement

Products

Applications

Rheology Control,  
Thixotropic Effect

Products

Applications

Free Flow, Anti Caking

Products

Applications

Carrier, Processing Aid

Products

Benefits

Anti plate-out  
Controlled migration

Products

Applications

Dielectric properties,  
Thermal conductivity

Products

Applications

Surface modification

Products

Applications

Nucleation of foams

Products

Applications



### Product recommendations / applications

- AEROSIL® R 972 V, AEROSIL® R 9200, AEROSIL® R 812 S
- SIPERNAT® 880
- TPE-S, TPU, bio-based polymers, cable gels, other polymers
- AEROSIL® 200, AEROSIL® R 974
- SIPERNAT® 22 S, SIPERNAT® 320 DS
- Polymer melts, pastes / plastisols, liquid components etc.
- SIPERNAT® 22 S, SIPERNAT® D 17
- AEROSIL® R 972, AEROXIDE® ALU C
- Plastic powders and granules  
(e.g. PVC-P, TPE's, acrylic impact modifier, EVA)
- SIPERNAT® 22 S, SIPERNAT® 50 S, SIPERNAT® 320 DS,  
SIPERNAT® 500 LS
- Easier dosing, handling, incorporation and dispersion of  
liquid / solid additives
- SIPERNAT® 320 DS, SIPERNAT® 500 LS
- AEROSIL® 200
- Processing of PVC-P / other plastics, controlled migration  
of additives (e.g. surfactants)
- AEROSIL® 200, AEROSIL® 300, AEROSIL® OX 50
- AEROXIDE® ALU C, AEROXIDE® ALU C 805
- Cable compounds, electric insulation films, electronic articles
- AEROSIL® R 812 S, AEROSIL® R 8200, AEROSIL® R 972,  
AEROSIL® R 202
- SIPERNAT® 310
- Surface polarity, printability, easy to clean, scratch resistance,  
abrasion resistance
- AEROSIL® R 974, AEROSIL® R 972, AEROSIL® 200
- EPS, EPE, EPP, TPE foams  
(silica as nucleating germ, dispersion of blowing agent)

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