

SIPERNAT® Specialty Silica for Sulfur Removal in Biodiesel



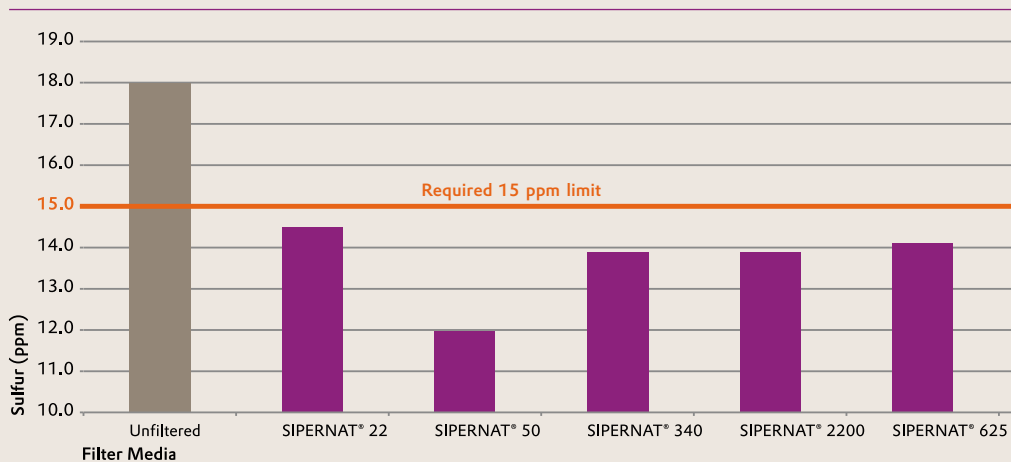
Filtration Study:

A recent study was conducted at Evonik to determine how well SIPERNAT® specialty silica filters sulfur out of biodiesel. According to B100 specifications, a S15 grade of biodiesel must have a sulfur value below 15 ppm and be tested using ASTM Method D5453. Prior to filtration, the biodiesel was chilled to 40°F overnight to allow sulfur containing waxes to solidify. Once chilled, the biodiesel is filtered and shipped to an independent testing lab for evaluation.

Conclusions:

The results indicate that Evonik's silica performs well at filtering sulfur below the required 15 ppm limit, with SIPERNAT® 50 performing the best.

Sulphur Level – Comparison of various SIPERNAT® grades as a filtration medium for biodiesel



Products	d ₅₀ Particle Size, laser diffraction (µm)	Tapped Density (g/L)	DOA Absorption (ml/100g)	Loss on Drying (%)
SIPERNAT® 22	120	245	240	≤ 7
SIPERNAT® 50	40	175	290	≤ 7
SIPERNAT® 340	20	160	235	≤ 7
SIPERNAT® 2200	320	250	225	≤ 7
SIPERNAT® 625	85	285	225	≤ 8

The given data are typical values, specifications available on request

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Tested Grades

SIPERNAT® 22

SIPERNAT® 50 – Top performer in Evonik filtration study.

SIPERNAT® 340

SIPERNAT® 2200

SIPERNAT® 625



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