NSE in Films with IR barrier and anti-blocking

Please select topic for further information

NSE as an IR absorber in LDPE greenhouse films

NSE as an IR absorber in PE-EVA greenhouse films

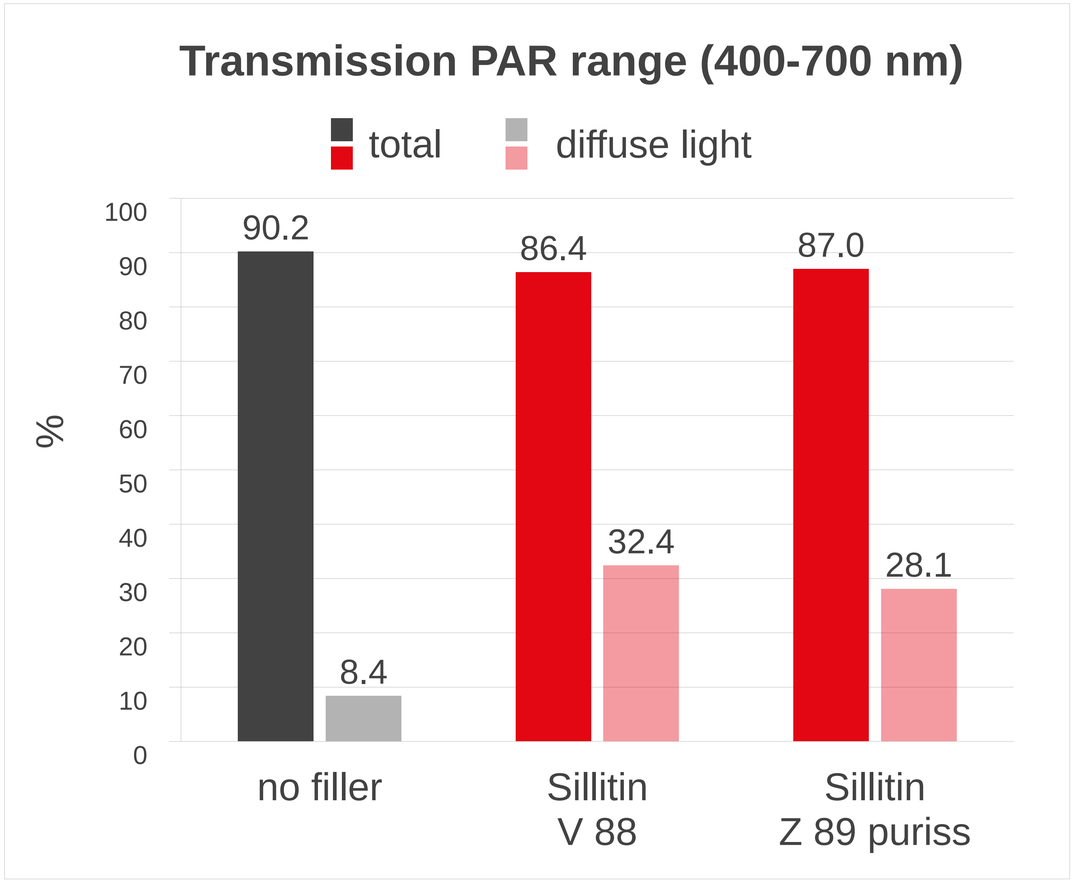
NSE as anti-blocking agent in thin LLDPE films

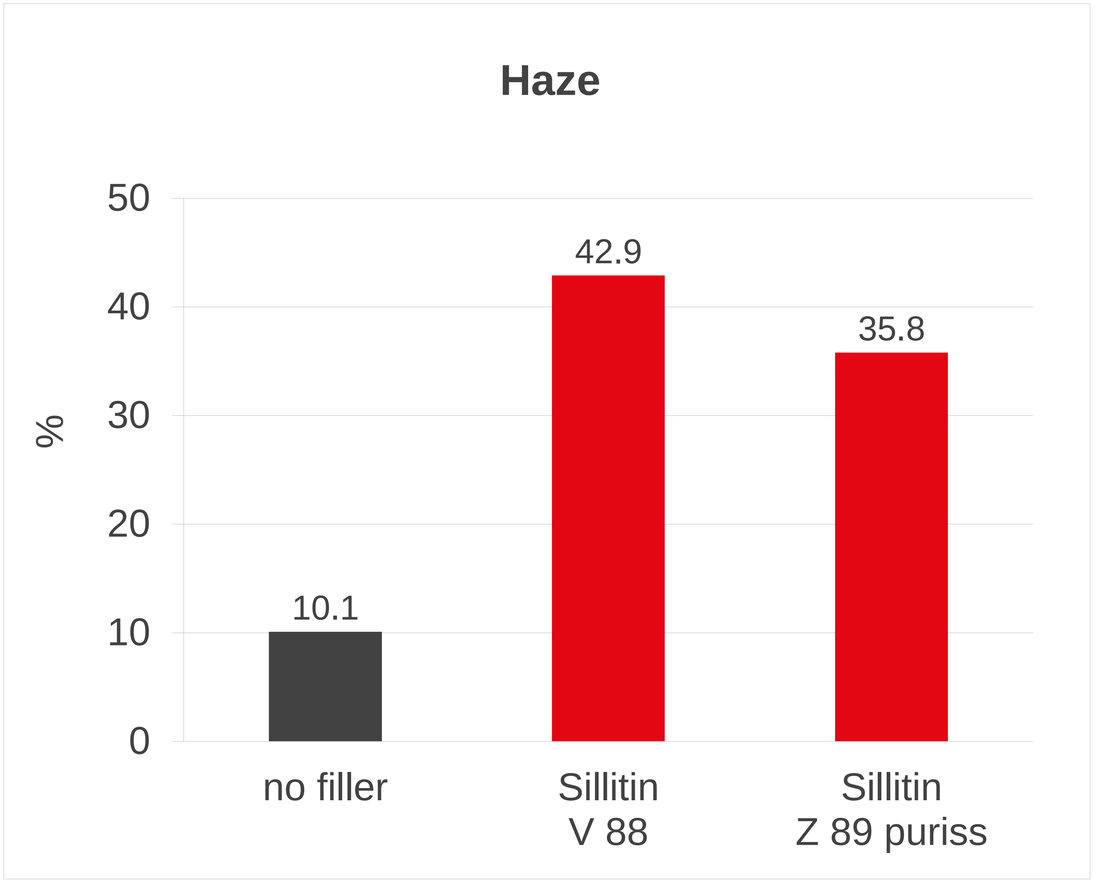
NSE as an IR absorber in LDPE greenhouse films

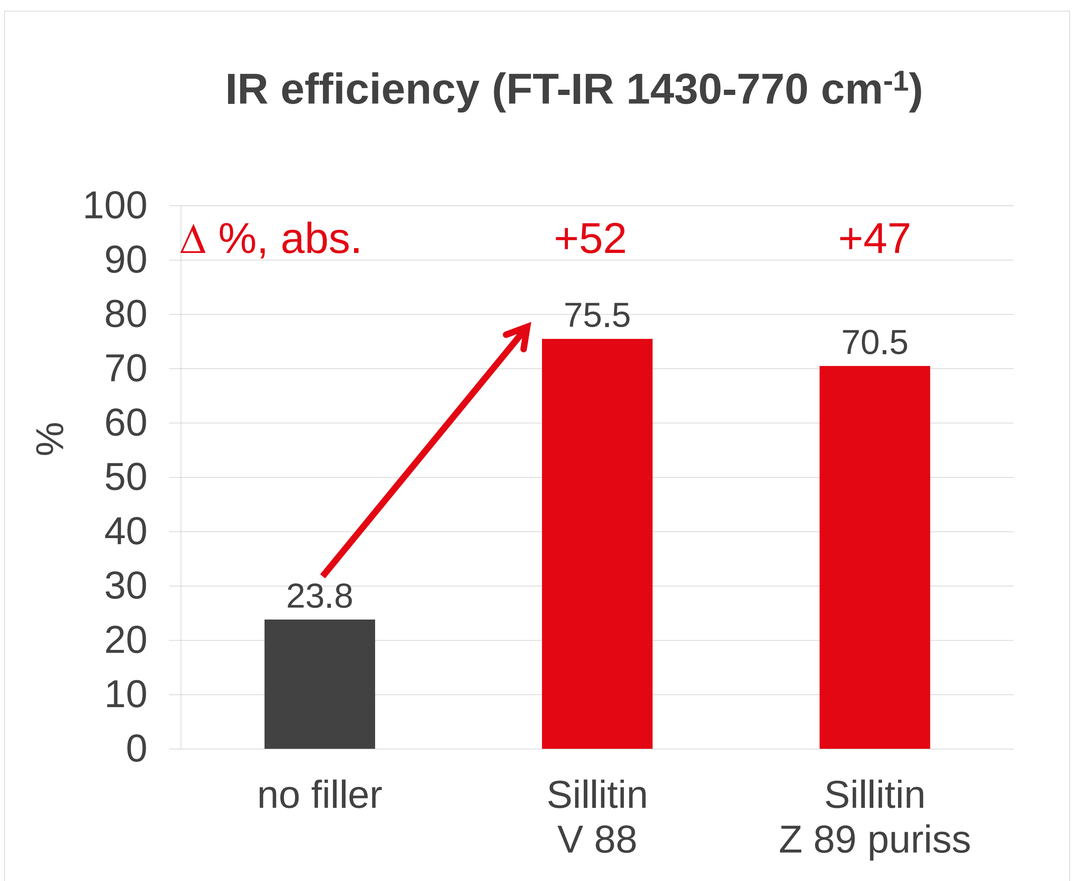
HOFFMANN MINERAL®

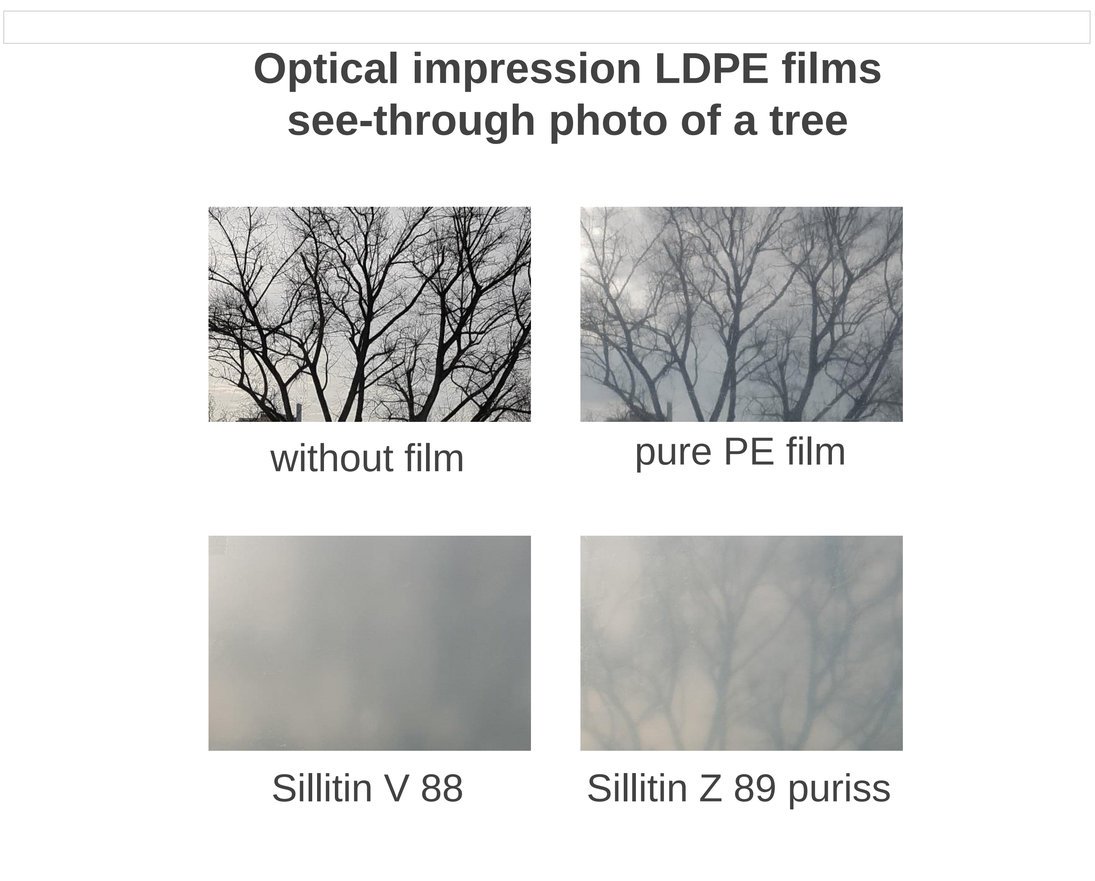
Blown mono film, 100 µm, 7.5 wt% filler content

Results









Summary

NEUBURG SILICEOUS EARTH is suitable as an IR absorber in greenhouse films and exhibits the following effects in PE films (compared to the pure film):

✓ Stronger light scattering with almost unchanged total transmission in the PAR range

✓ Significantly higher IR efficiency, thereby reducing the thermal loss versus pure film

Sillitin V 88

strongest light scattering
highest IR barrier

Sillitin Z 89 puriss

good light scattering
good IR barrier
low optical haze

Other grades or adapted loading offer the potential for further optimization, e. g. additionally enhanced IR efficiency or extended life / improved weatherability of the film. Products on request available.

NSE as an IR absorber in PE-EVA greenhouse films

HOFFMANN MINERAL®

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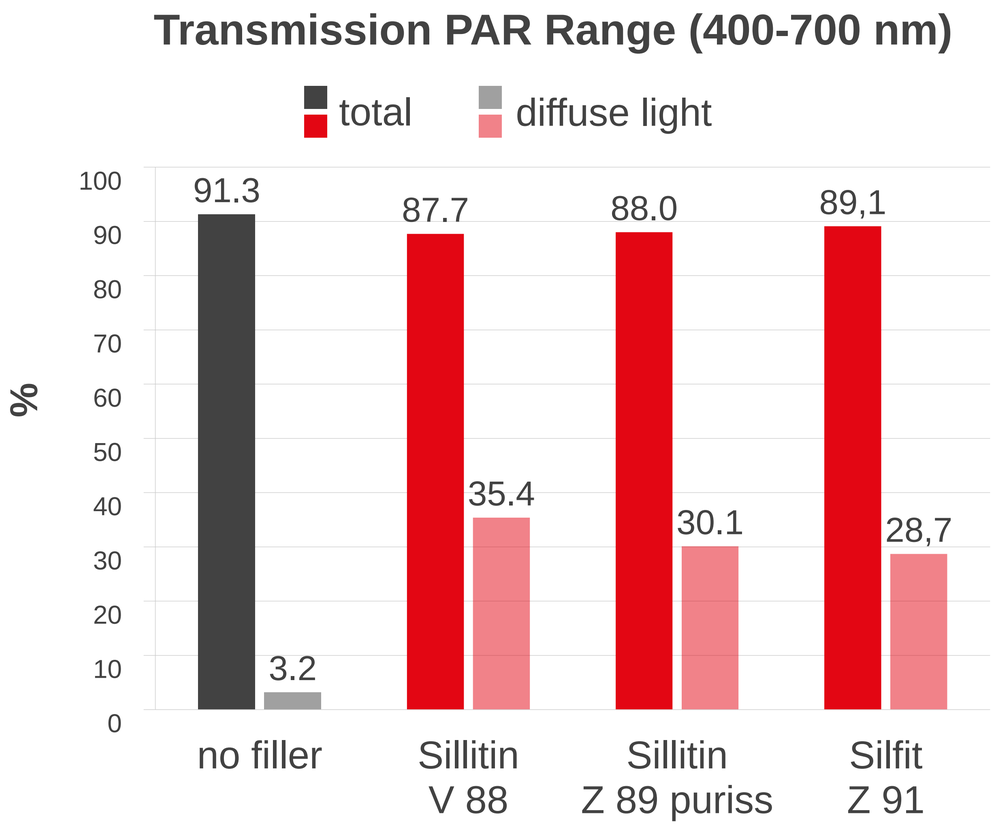

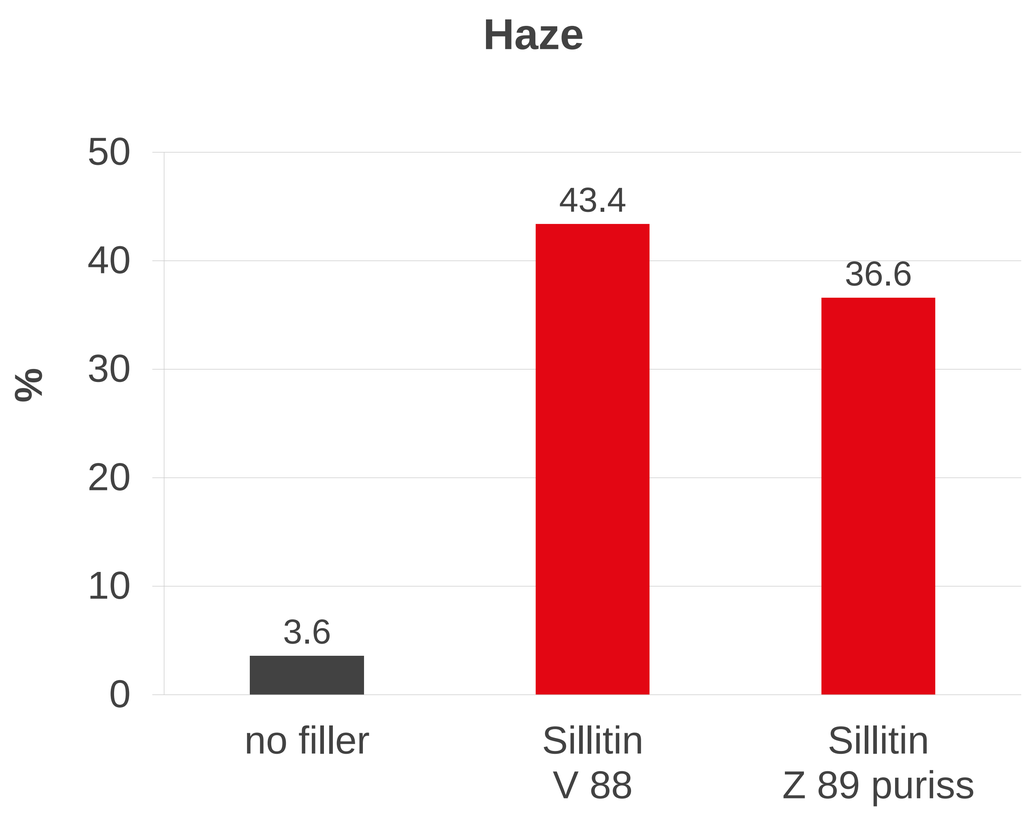

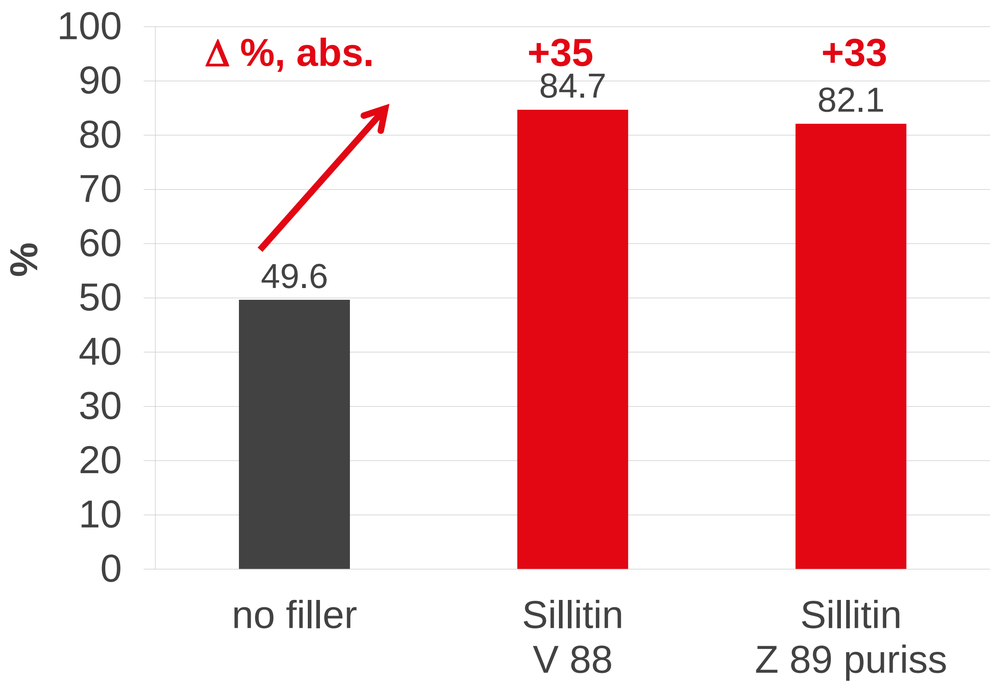

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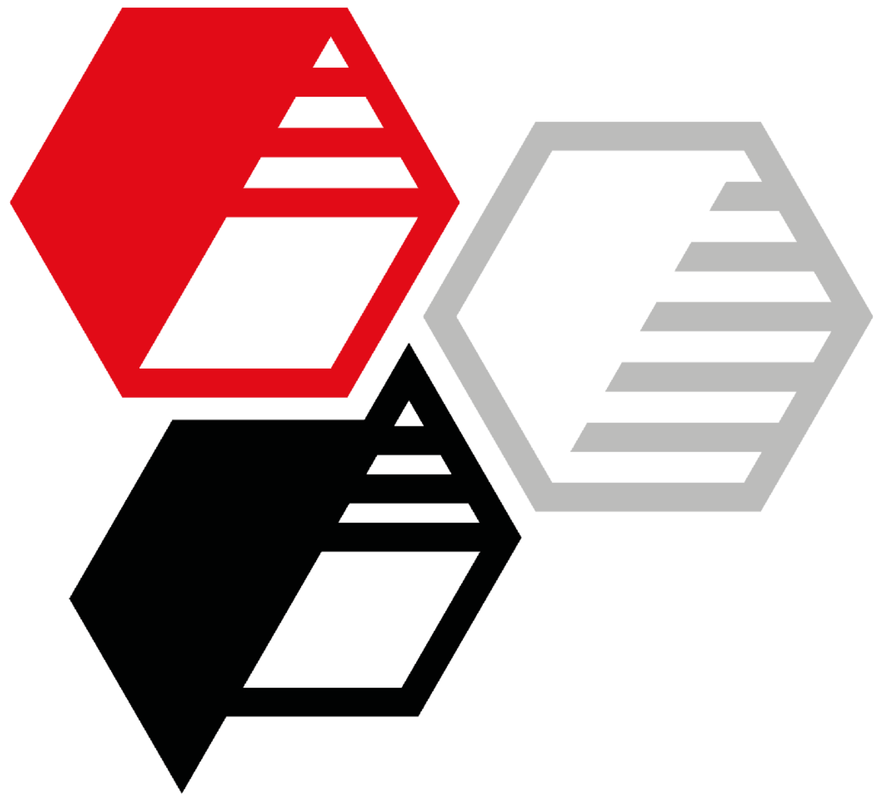


NSE as anti-blocking agent in thin LLDPE films

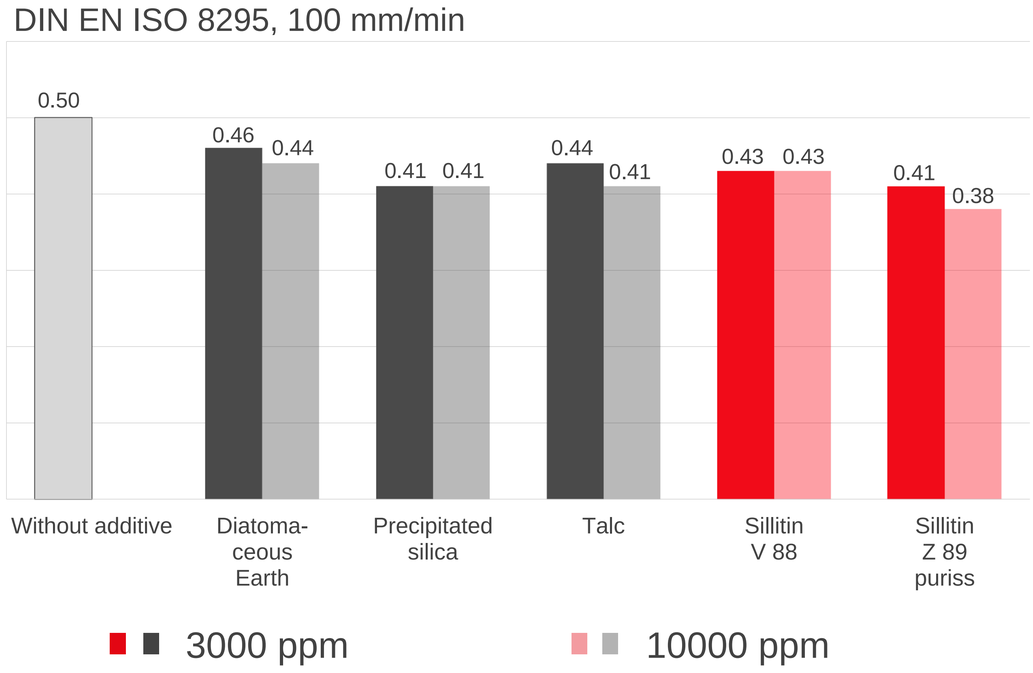
HOFFMANN MINERAL®

Blown mono film, Sabic 118 N, without slip additive, film thickness 20 µm

Results

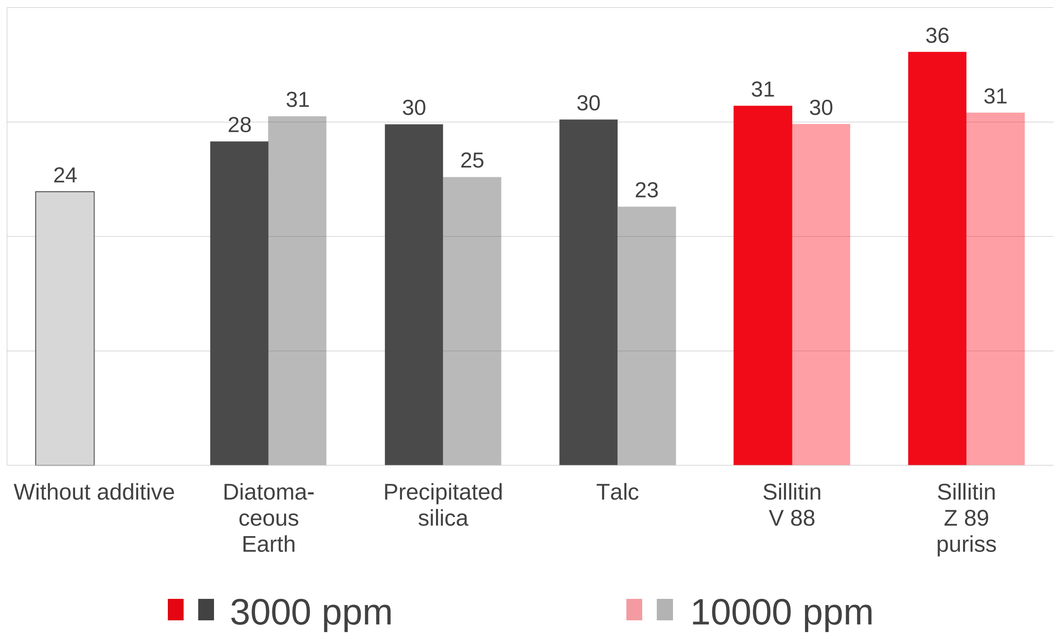
Coefficient of Friction COF [-]
Film / Film, static

DIN EN ISO 8295, 100 mm/min



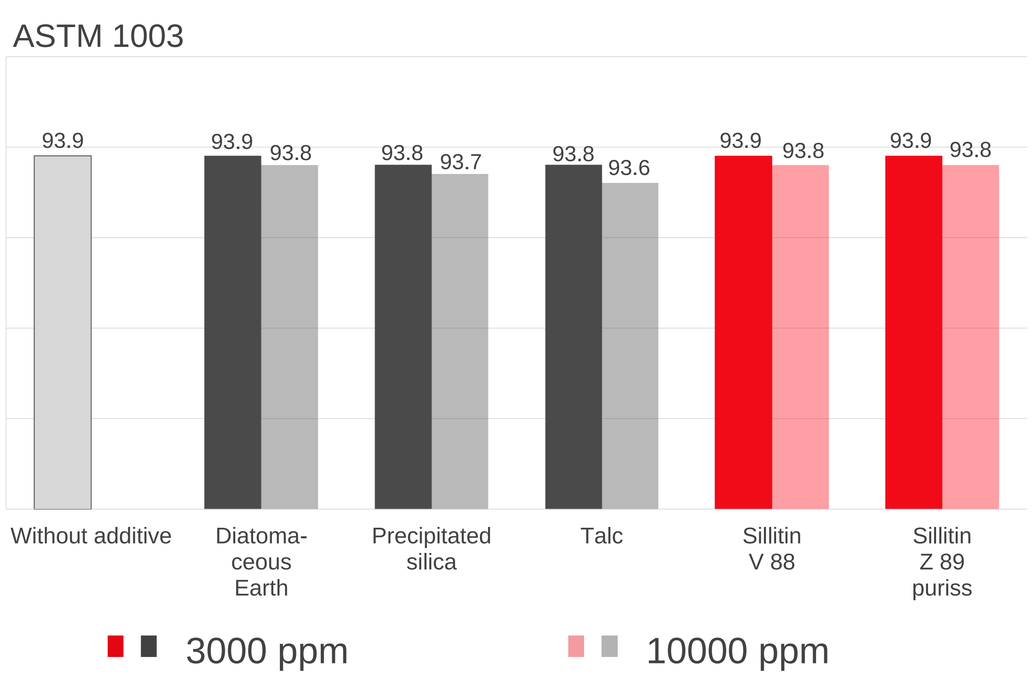
Gloss 45° [gloss units]

ASTM 2457



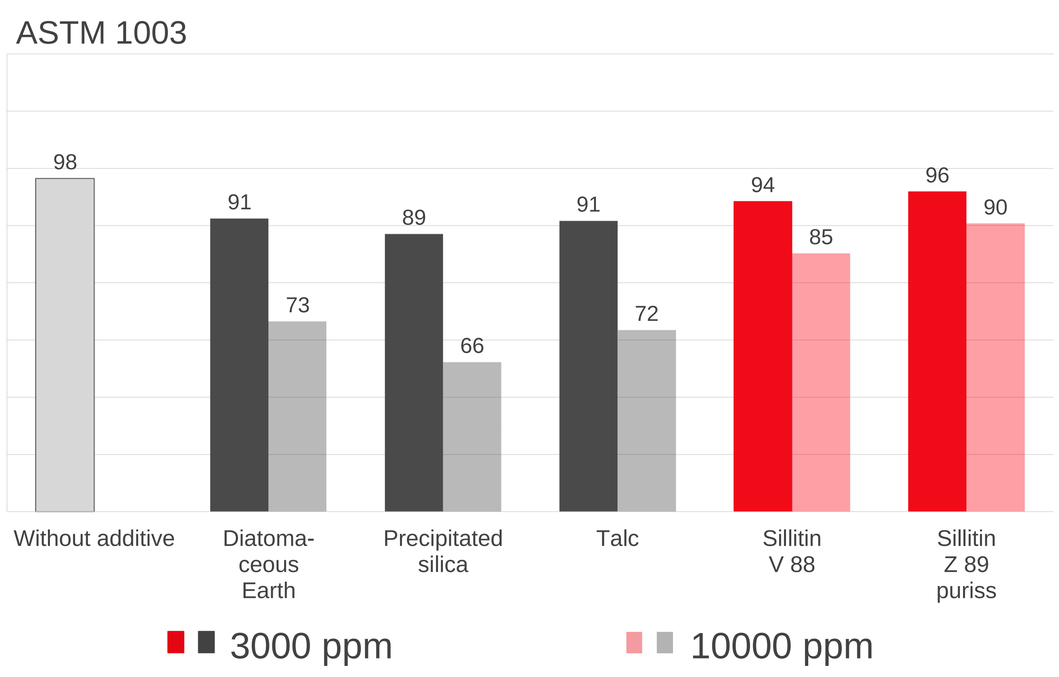
Transmittance [%]

ASTM 1003



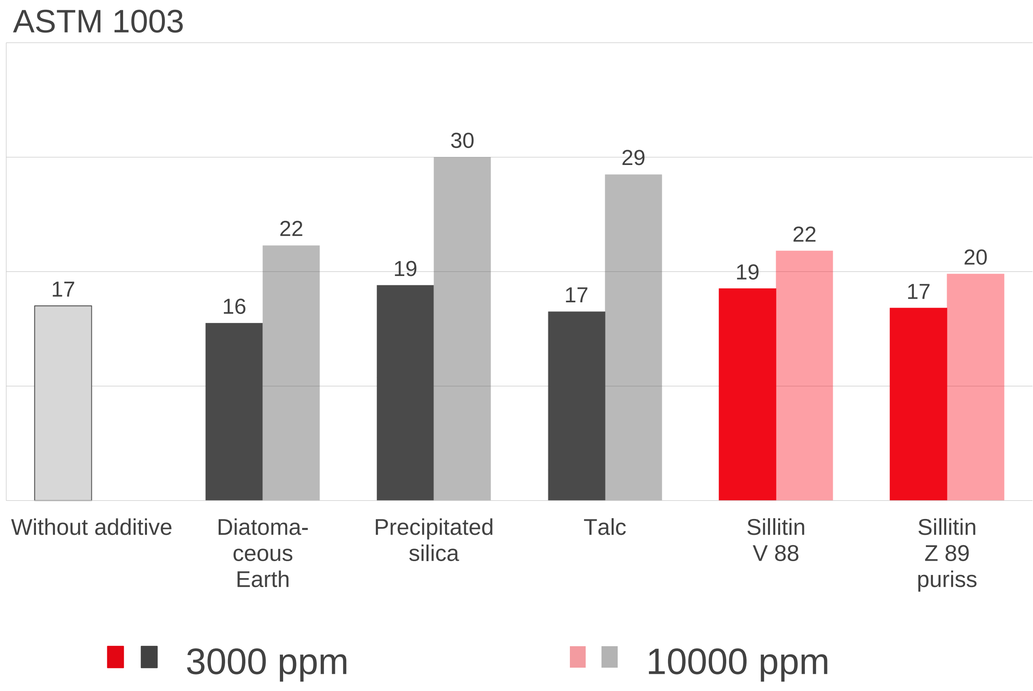
Clarity [%]

ASTM 1003



Haze [%]

ASTM 1003



Recommendations

- **Sillitin V 88** — cost-effective standard grade, for films with higher thickness
- **Sillitin Z 89 puriss** — better optical properties (high gloss, high clarity, lowest haze)