


NEUBURG SILICEOUS EARTH IN ARCHITECTURAL EXTERIOR EMULSION PAINT

Styrene Acrylic / PVC 62 % / TiO₂ 18 %

TiO₂ Extension: Sillitin Z 89 vs. PCC

FORMULATION

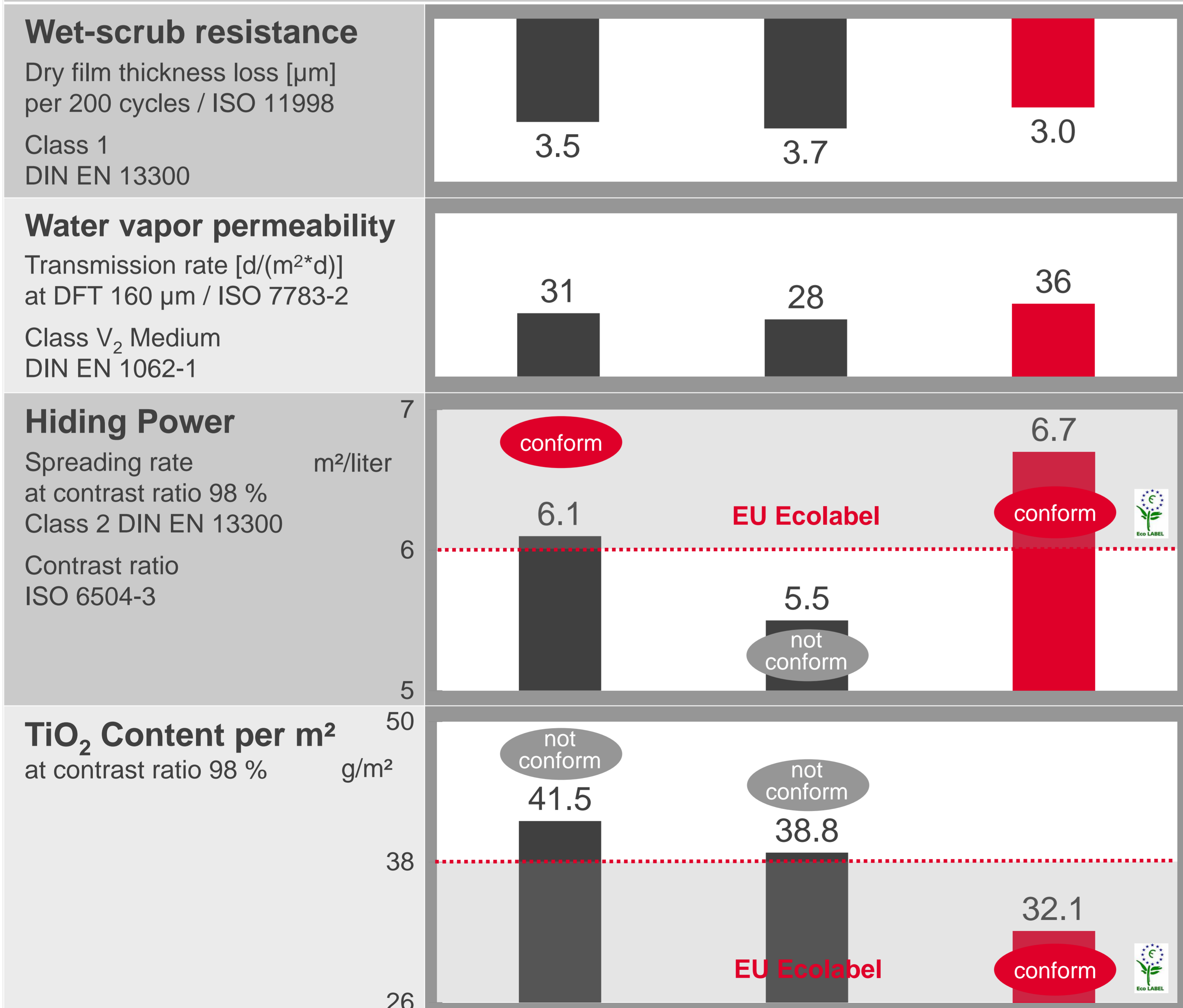
* Base formulation by BASF		Control*	- 17 % TiO ₂	
Water deionized		262		
Additives		38	PCC	Sillitin Z 89
Cosolvents		30		
TiO ₂		180	150	150
PCC	0.3 µm	100	100	
Neuburg Siliceous Earth				100
GCC	5 µm	180		
Talc	5 µm	50		
Acronal S 790		220		
Total parts by weight		1060		
Solids content w/w [%]		59.9		

COST / PERFORMANCE

Germany 2019 at contrast ratio 98 %			
Spreading rate / liter	Change vs. Control [%]	- 9.8	+ 9.8
Raw material cost / liter		- 6.0	- 4.0
Total efficiency		- 3.8	+ 13.8

IMPROVED FEATURES

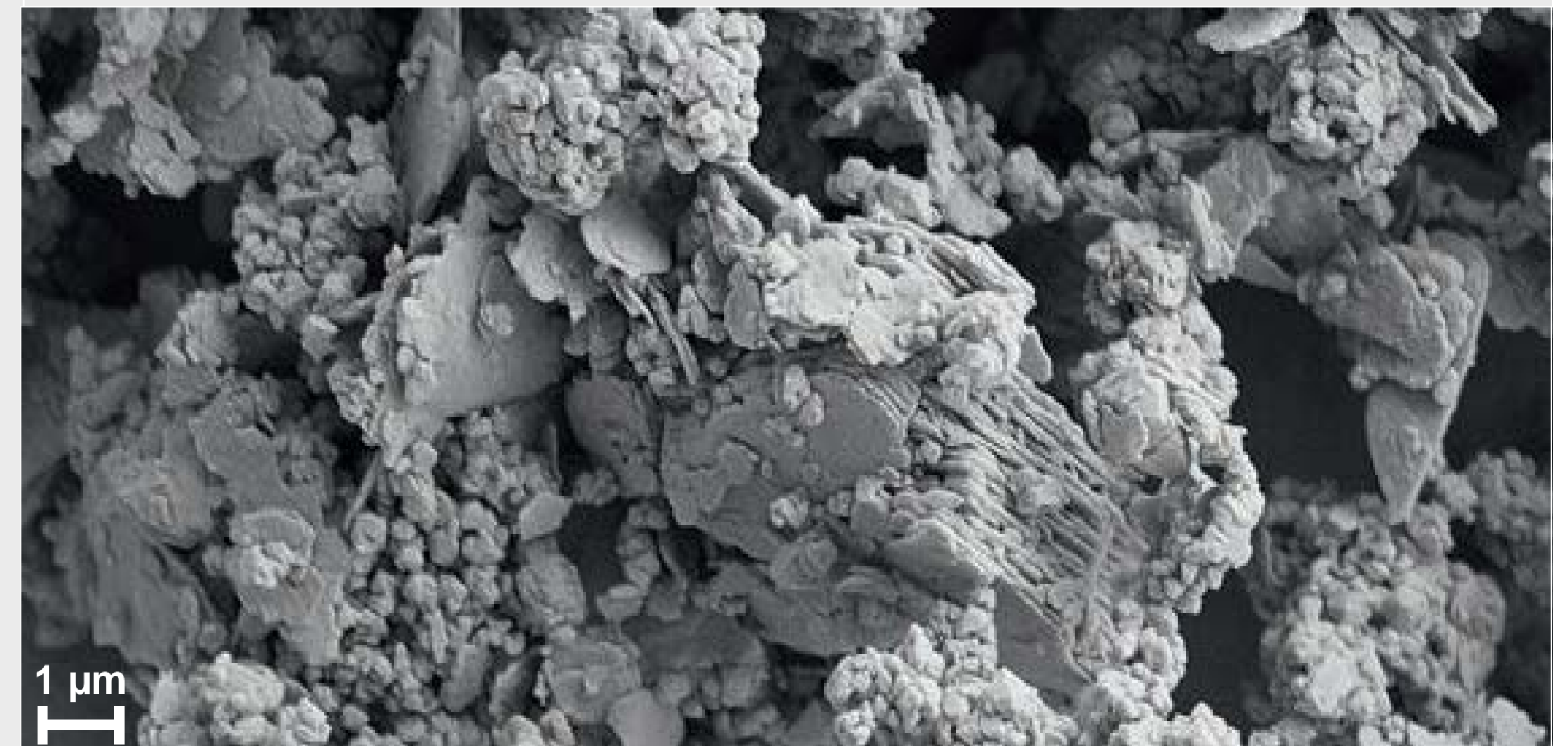
Undiluted formulations / drying time before testing: 28 days / 23°C / 50% relative humidity



RETAINED FEATURES

Without significant difference or minor effects:

- **Preparation**
Dissolver equipped with toothed disc (Cowles blade)
Dispersing 15 m/s for 20 min, water cooling, T max. 50°C
- **Viscosity**
at low shear 0.1 s⁻¹ 11 – 15 Pa*s
at high shear 1000 s⁻¹ 0.2 Pa*s (Searle, 23°C)
- **Storage stability**
no phase separation, settling or sediment
(after 6 months, 23°C)
- **Low gloss**
- **Liquid water permeability**
at DFT 160 µm ~ 400 ml/m² / DIN EN 1062-3
Class W₃ Low DIN EN 1062-1



SUMMARY

Sillitin Z 89 gains the following combined benefits

- ✓ improved wet-scrub resistance
- ✓ optimized breathability (water vapor permeability) of façade
- ✓ markedly improved hiding power and higher spreading rates compared to PCC
- ✓ TiO₂ reduction and white pigment saving along with increased performance
- ✓ real cost cutting potential
- ✓ paint finally compliant to EU Ecolabel requirements for spreading rate & limits for white pigments

HOFFMANN
MINERAL