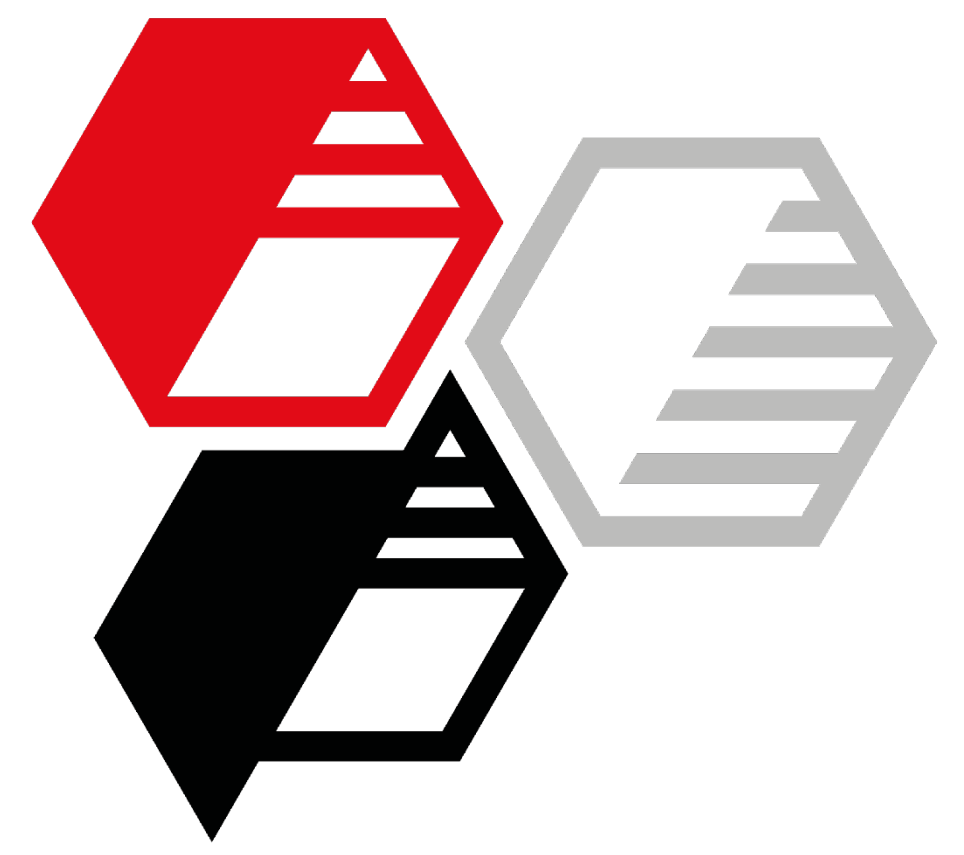


Neuburg Siliceous Earth in water-based corrosion protection DTM alkyd single-layer white



Objective

Talc-free improvement and retention of gloss and flexibility without sacrificing good adhesion and protective performance during climatic exposure

Neuburg Siliceous Earth (NSE): Sillitin Z 89, TP 2008106 (alkyl functionalized Sillitin Z 89)

Formulation

	Main filler	Talc	NSE	
Pigment Preparation	Water demineralized	8.60		
	Edaplan 490	1.00		
	Byk 349	0.20		
	Byk 024	0.50		
	AMP 90	0.20		
	Omyacoat 850-OG	2.00		
	HAR* Talc or NSE	5.10	5.10	
	Kronos 2190	17.20		
	<i>Disperse with high shear rate, then add</i>			
	Asconium 111	2.40		
Let down	<i>Add with continuous stirring</i>			
	WorléeSol E 330 W	60.00		
	Water demineralized	1.15		
	Borchi OXY-Coat 1101	0.25		
	Coapur 3025	1.60		
Ascotran H10	0.20			
Total		100.40		
<i>Solids content w/w 51 % PVC 22 %</i>				
<i>* High aspect ratio</i>				

Summary

Retained features

- ✓ High brightness, color neutrality and hiding power
- ✓ Perfect adhesion: all GT 0 - 1 in cross cut test
- ✓ Corrosion protection: barrier effect in non-scribed area, low blistering, delamination and rust formation at scribe

Improved features with **Neuburg Siliceous Earth**

- + Keeping higher gloss for longer lasting optical appearance and easier to clean coatings
- + Optimized mechanical flexibility even under humid exposure
- + Avoidance of filler use with potential future SVHC-classification as substance of very high concern

Sillitin Z 89 for cost-effective filler combinations

TP 2008106 similar, but for even better wet adhesion as usually expected from talc

Results

Single-layer 60 µm DFT 14 days drying 23°C / 50 % RH cold rolled steel

