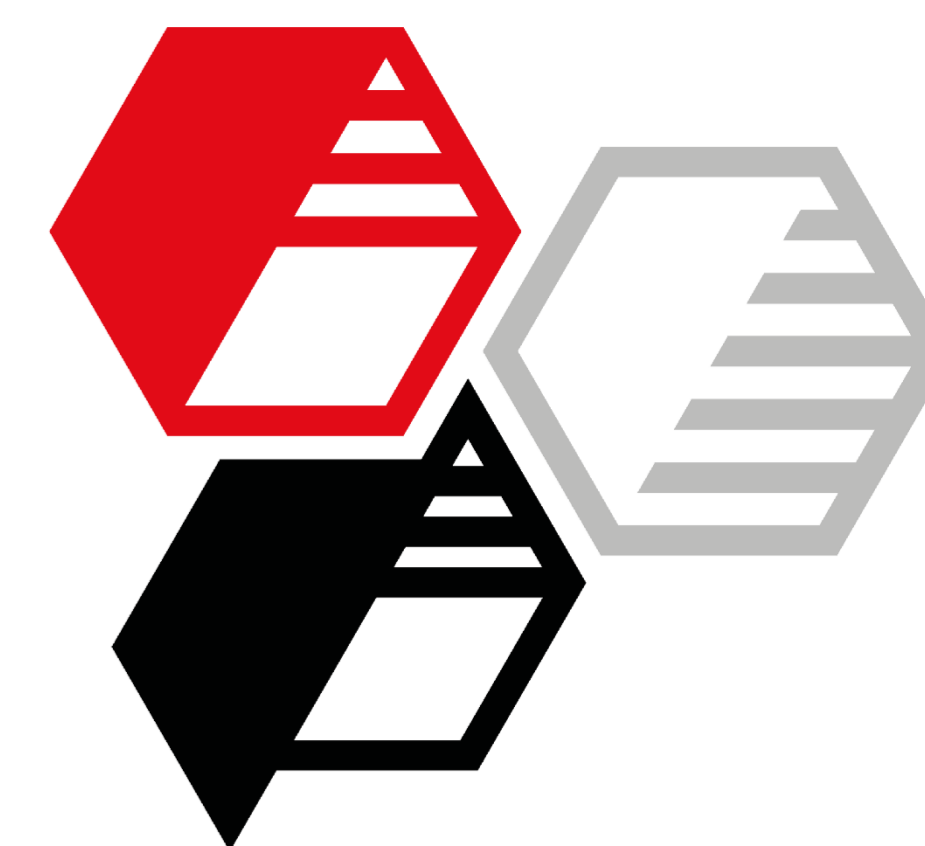


# Neuburg Siliceous Earth in water-based corrosion protection acrylate primer, red



## Objective

Improvement of anti-corrosion properties

Fine ground  
Calcium Carbonate + Talc



Neuburg Siliceous Earth:  
**Aktifit PF 115**

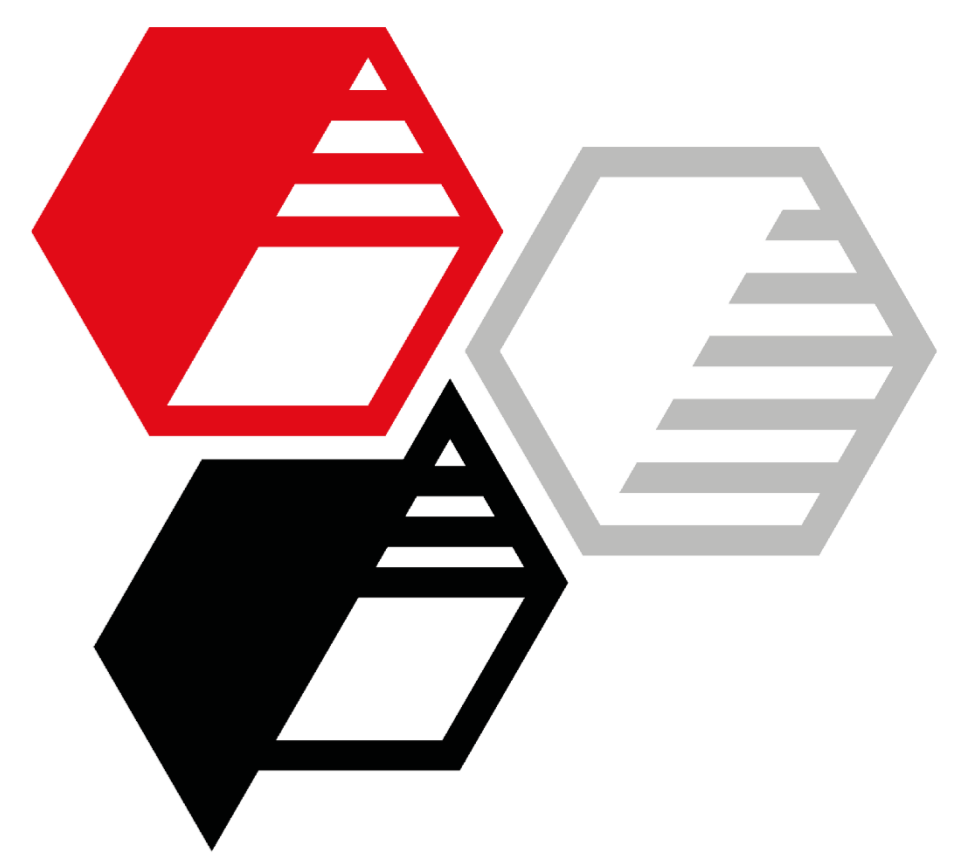
## Formulation

Pigment preparation	Water demineralized		7.0	15.0
	Edaplan 490	dispersing agent	0.8	
	Byk 024	defoamer	0.1	
	Butyl glycol	co-solvent	3.0	
	Bayferrox 130 M	pigment	8.9	
	Filler	Calcium carbonate	10.5	
		Talc	3.0	
		<b>Aktifit PF 115</b>		<b>13.5</b>
	Heucophos ZPO	anti-corrosion pigment	7.0	
	Heucorin RZ	org. corrosion inhibitor	1.0	
Let down	Alberdingk SC 48	acrylic dispersion	39.7	
	Water demineralized		10.9	2.9
	Optifilm Enhancer 300	co-solvent	1.0	
	Byk 024	defoamer	0.4	
	Byk 349	wetting agent	0.1	
	Ascotran H10	flash rust inhibitor	0.5	
	Ammonia (25 %)	neutralizing agent	0.8	
	Resydrol AX 237w/70BG	epoxy-alkyd resin	4.0	
	Borchi OXY-Coat 1101	drier	0.1	
	Tafigel PUR 41	rheology modifier	1.2	
<b>Total [%]</b>			<b>100.0</b>	
Solids content w/w [%]			56	
PVC [%]			31	

Preparation: dissolver with toothed disc

Basis: Guide formulation FP 48-02 by Alberdingk Boley

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## Results

Cold rolled steel Q-Panel R 48			Total dry film thickness 150 µm as dual-layer			Drying 28 d 23°C / 50% RH		
Calcium Carbonate + Talc			Aktifit PF 115					
<b>Adhesion</b> Cross-cut before test	GT 0			GT 0				
<b>Humidity test</b>								
	480 h GT 3 (1 h)	480 h blistering already after 240 h	stripped	480 h GT 0 (1 h)	480 h blister-free	stripped		
<b>Salt spray test</b>								
	480 h GT 4 - 5 (1 h)	800 h blistering already after 480 h		480 h GT 0 (1 h)	800 h blister-free			
								
240 h	480 h		240 h	480 h				
<b>Dry film thickness 80 µm as single-layer</b>								
								
	120 h	120 h		240 h	240 h			

## Summary

### Retained features

- Excellent adhesion before corrosion tests
- No delamination effects at scribe

### Improved features

- Better wet-adhesion under humid / ionic environmental exposure
  - Doubled blistering resistance in non-scribed areas
  - Highly counteracting lateral blistering / corrosion progress at scribe
- Aktifit PF 115** for better protective performance with only a single filler:
- ✓ Cuts off thickness or number of layers
  - ✓ Even for economic but much more critical single coat application