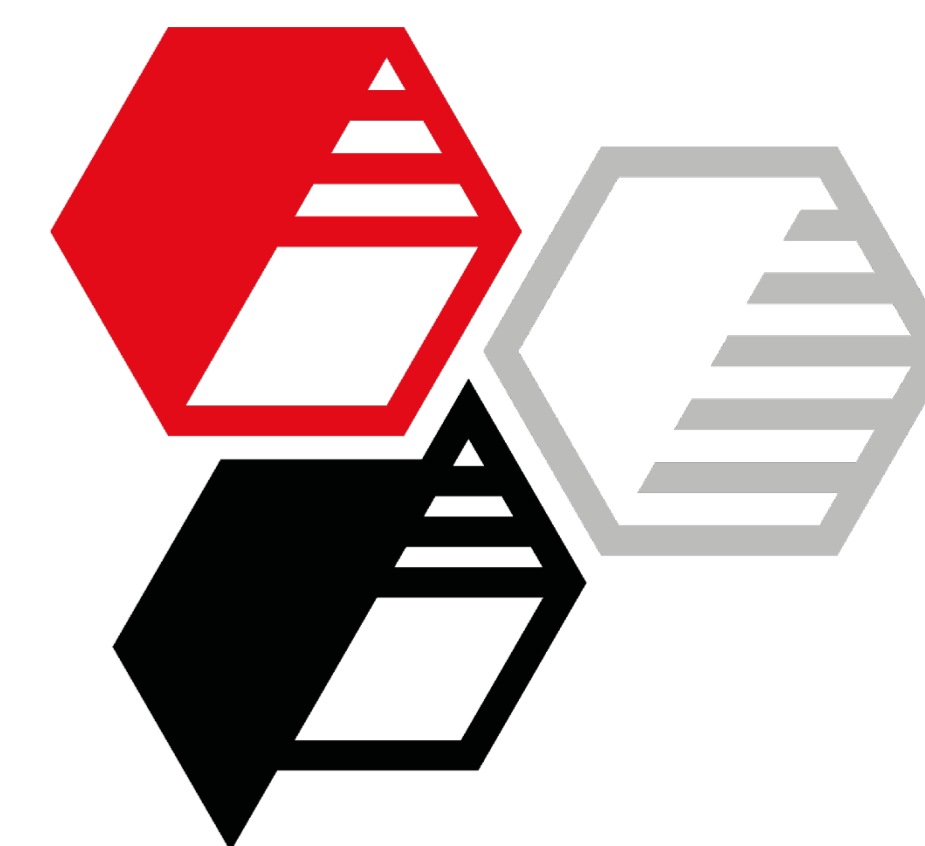


Neuburg Siliceous Earth in cathodic electro deposition coatings acrylate single-layer red



Objective

Effect of Neuburg Siliceous Earth (NSE) on the properties of a CED coating, filler introduction via reduction of the pigments content

Formulation

Pigment preparation	Control	NSE
Viacryl VSC 6292w/38WA	360	360
Texanol	20	20
Butyl glycol	6	6
Surfynol 104 1:1 in methoxy propanol	20	20
Deionized water	285	220
Paliogen-Red L 3910 HD	105	70
Kronos 2190	75	50
Neuburg Siliceous Earth	0	125
Acetic acid 30 %	12	12
Deionized water	117	117
Total	1000	1000

Bath formulation		
Deionized water		624
Acetic acid 60 %		1
Viacryl VSC 6292w/38WA		250
Pigment preparation		125
Total		1000

Pigment / binder ratio	0.20	0.27
Solids content w/w [%]	13.6	14.4

Substrate: Gardobond 26S/W/OC (steel, zinc phosphated) dry film thickness: approx. 35 µm curing at 170°C (35 minutes dwelling time of the panels in the oven)

Summary

CED coatings with Neuburg Siliceous Earth provide high corrosion protection. In addition, each type within the Neuburg Siliceous Earth range offers further advantages:

Sillitin Z 86

best price-performance ratio, good corrosion protection

Sillitin Z 89

higher gloss level, also for brighter colors, improved storage stability

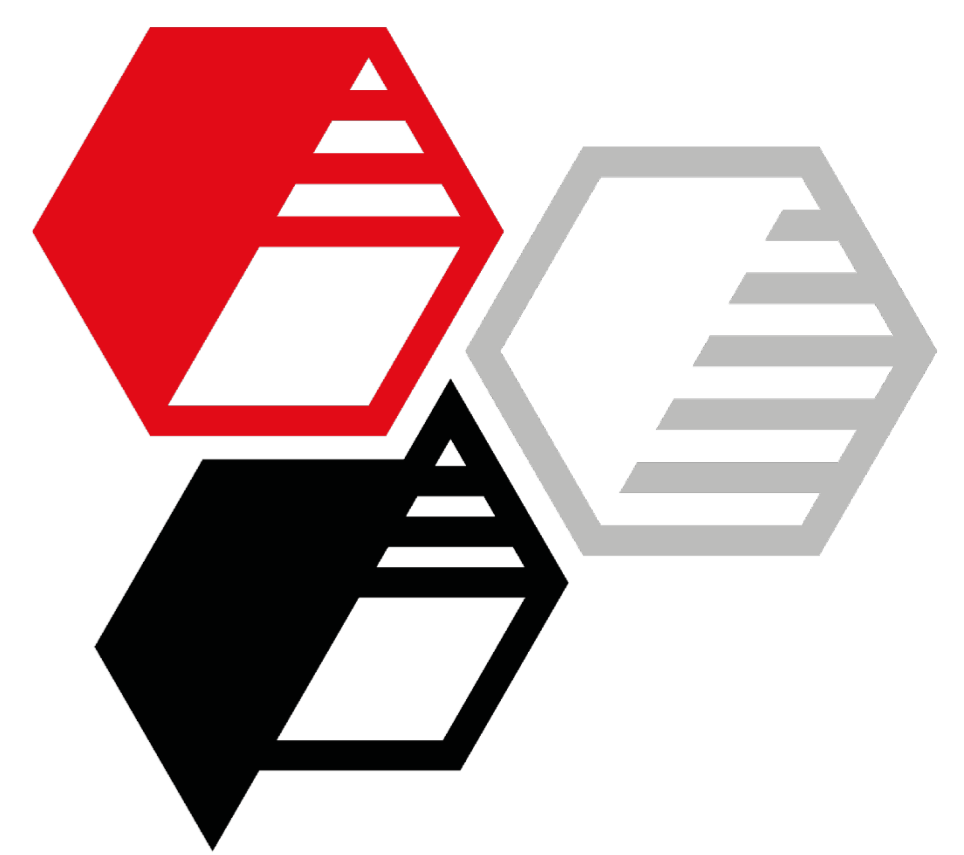
Sillitin P 87

higher gloss level, high gloss consistency even on geometrically complex structures (L-effect)

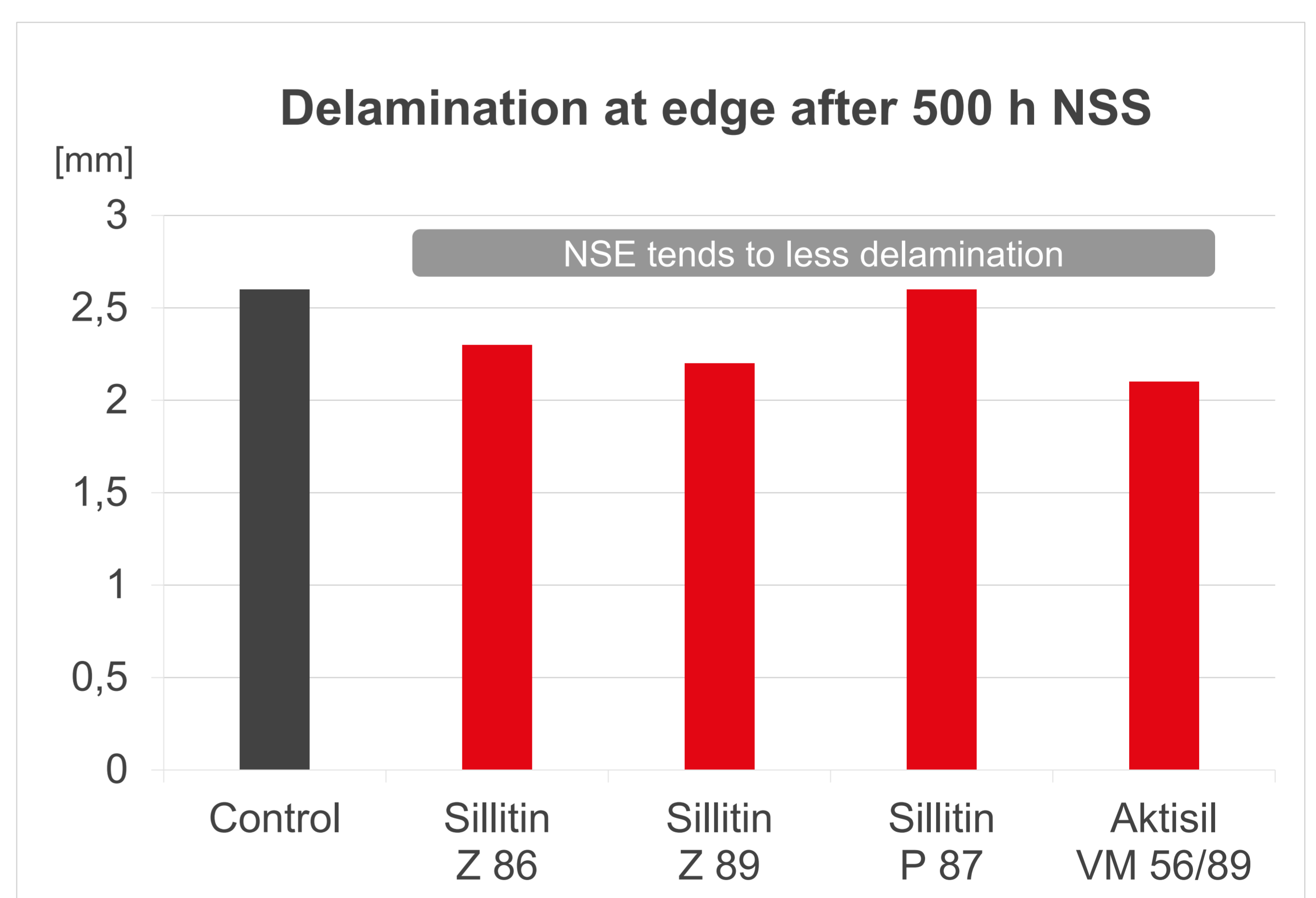
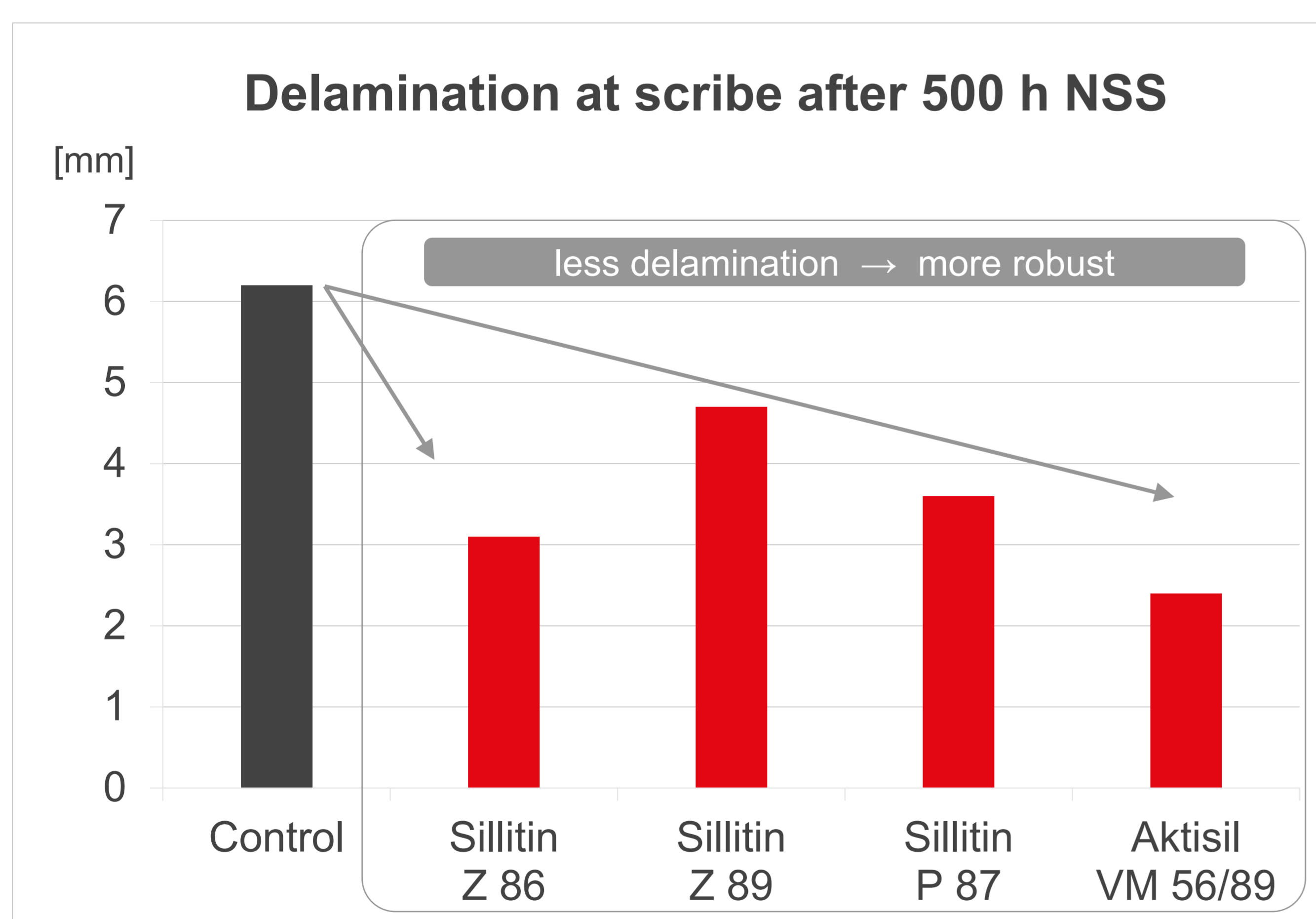
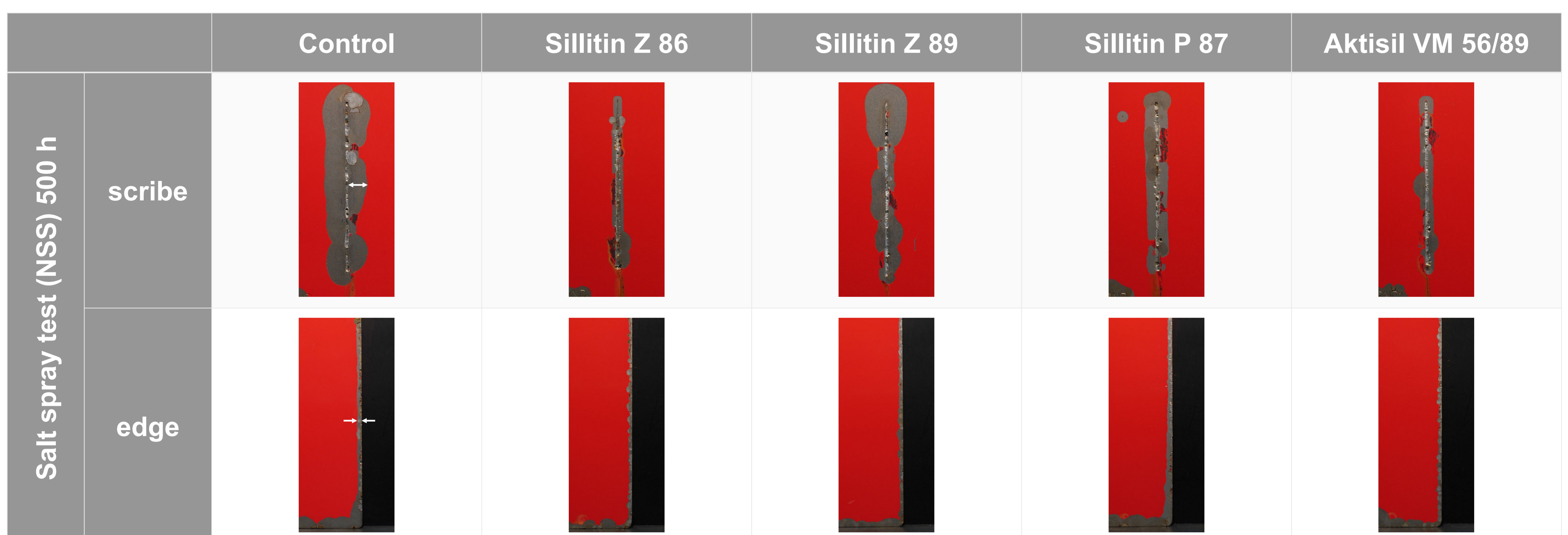
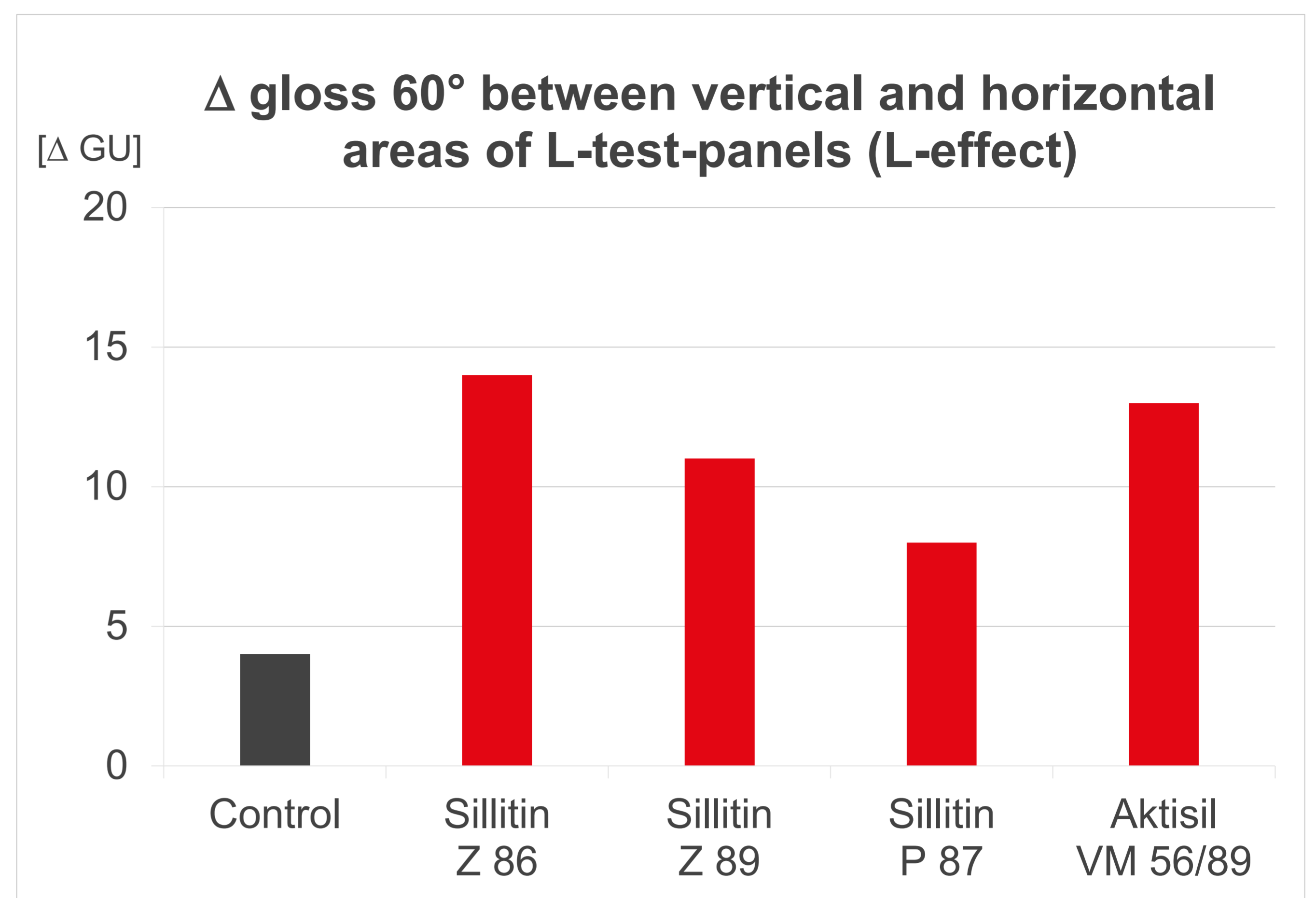
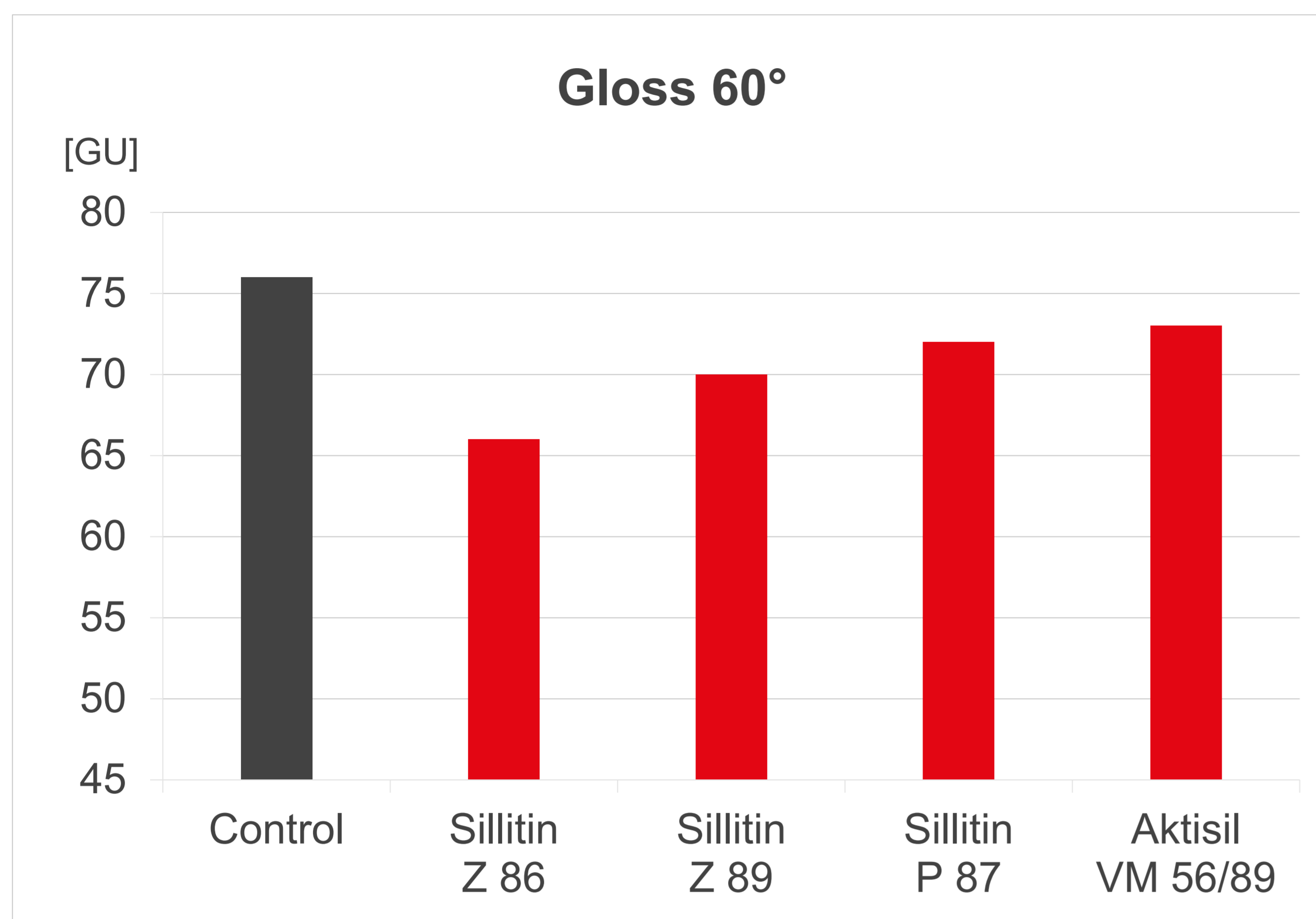
Aktisil VM 56/89

higher gloss level, also for brighter colors, improved storage stability, very low delamination at scribe and edge

Neuburg Siliceous Earth in cathodic electro deposition coatings acrylate single-layer red



Results



Retained properties

Cross-cut adhesion: 0
 Pendulum hardness (Koenig): > 160 s
 Cupping test: 8.3 – 6.9 mm
 Humidity test 1000 h: no change, cross-cut test (directly and after 24 hours): 0

Stone-impact stress: rating 1
 Impact intrusion (Ø 20 mm, 1 kg): 50 - 60 cm
 7-hole panel edge covering: similar