

NEUBURG SILICEOUS EARTH (SILFIT Z 91) IN GREY-COLORED WASHING MACHINE GASKETS

FORMULATION, 40 SHORE A, IN PHR

	with silica	without silica
Vistalon 3666	175.00	175.00
Stearic Acid	1.00	1.00
Zinkoxyd aktiv	5.00	5.00
Mineral Filler	100.00	150.00
Silica (pptd., BET appr. 130 m ² /g)	25.00	-
Kronos 2222	9.00	9.00
Corax N 550/30	0.35	0.35
Aflux S	3.00	3.00
DEG	3.00	3.00
Silanogran PV	4.80	4.80
Sunpar 2280	25.00	25.00
Sulfur	0.70	0.70
Rhenogran MBT-80	2.40	2.40
Rhenogran CLD-80	1.20	1.20
Rhenocure TP/S	3.60	3.60
Total	359.05	384.05

MINERAL FILLERS

Calcined Clay

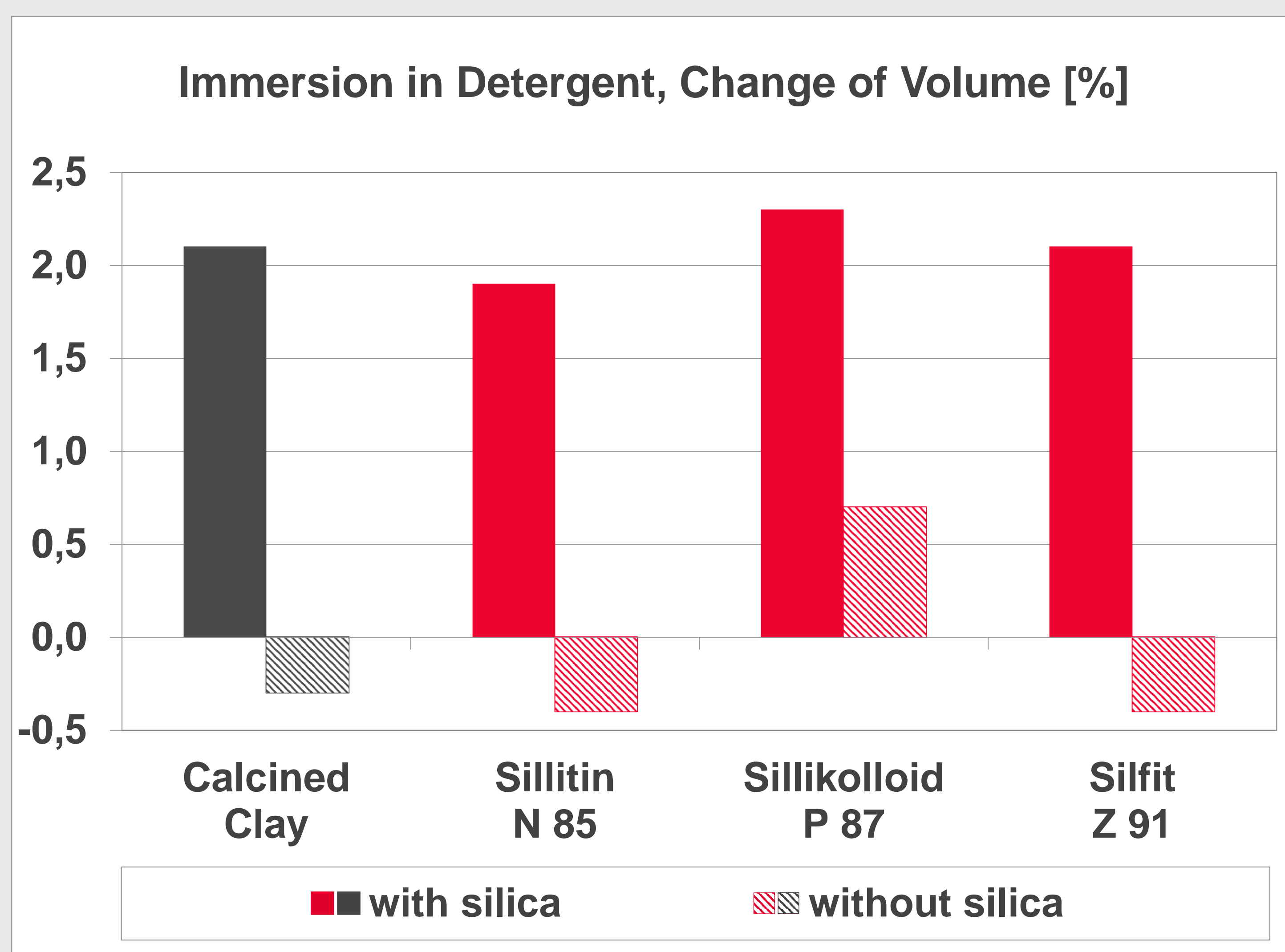
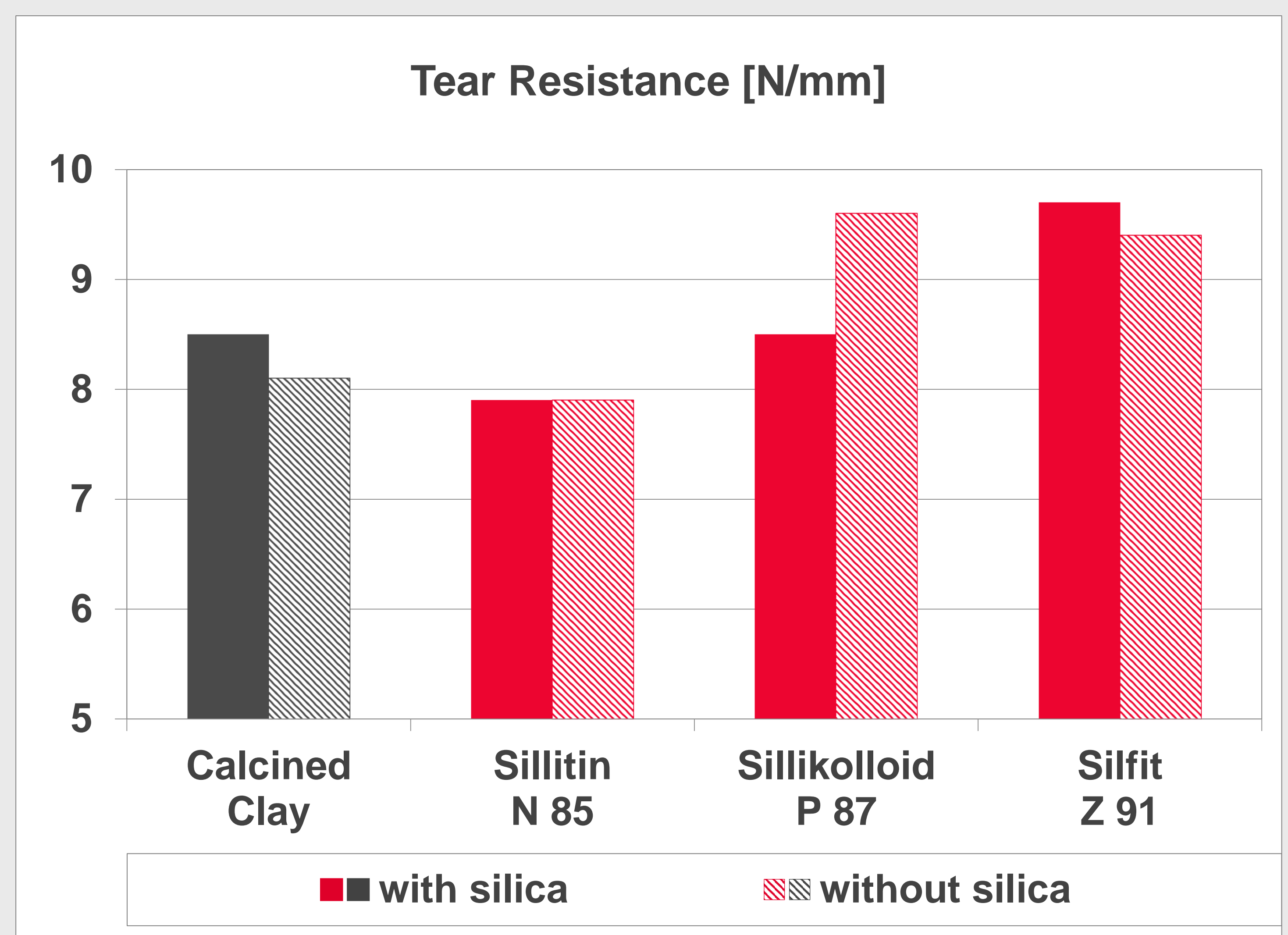
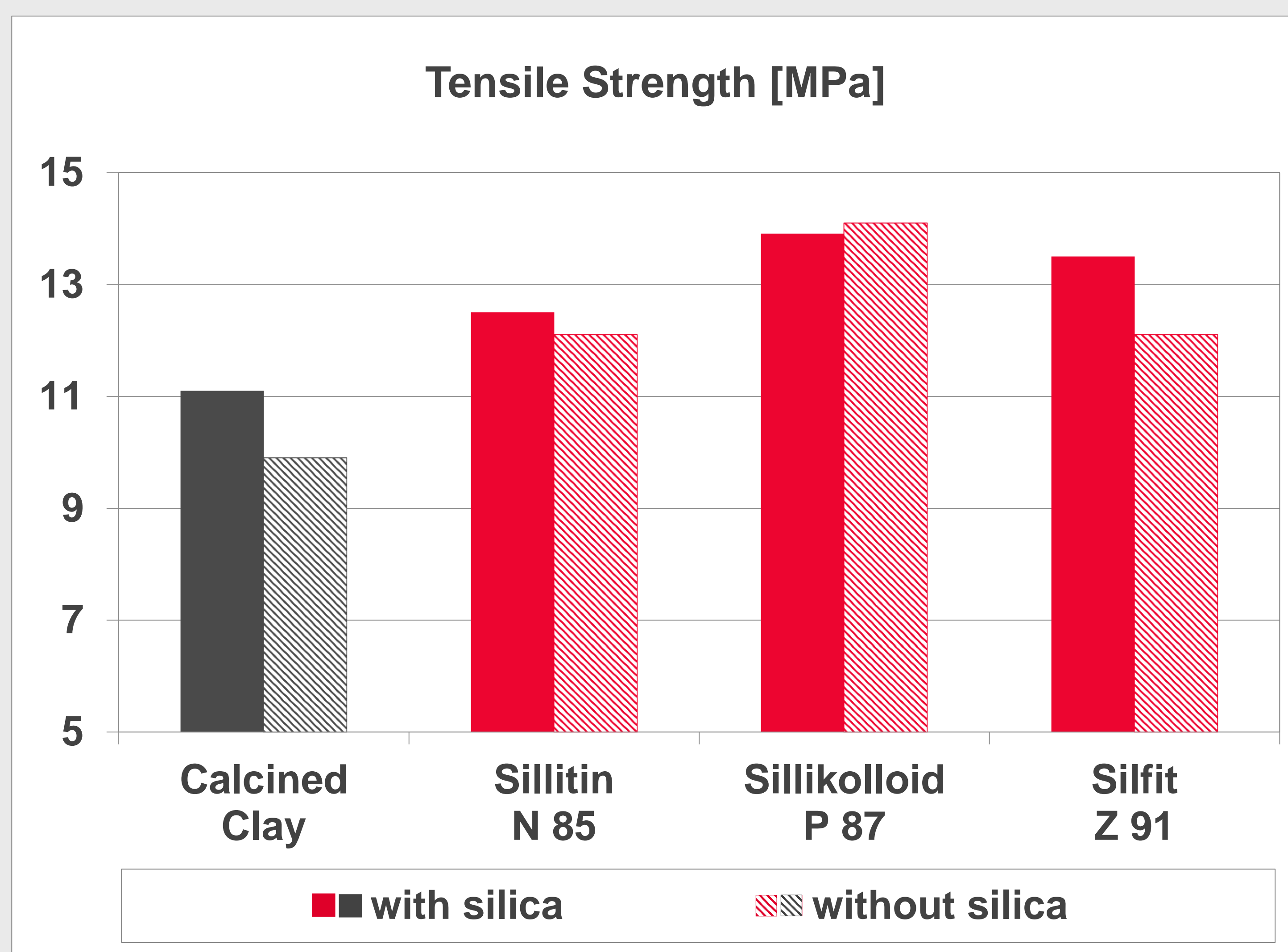
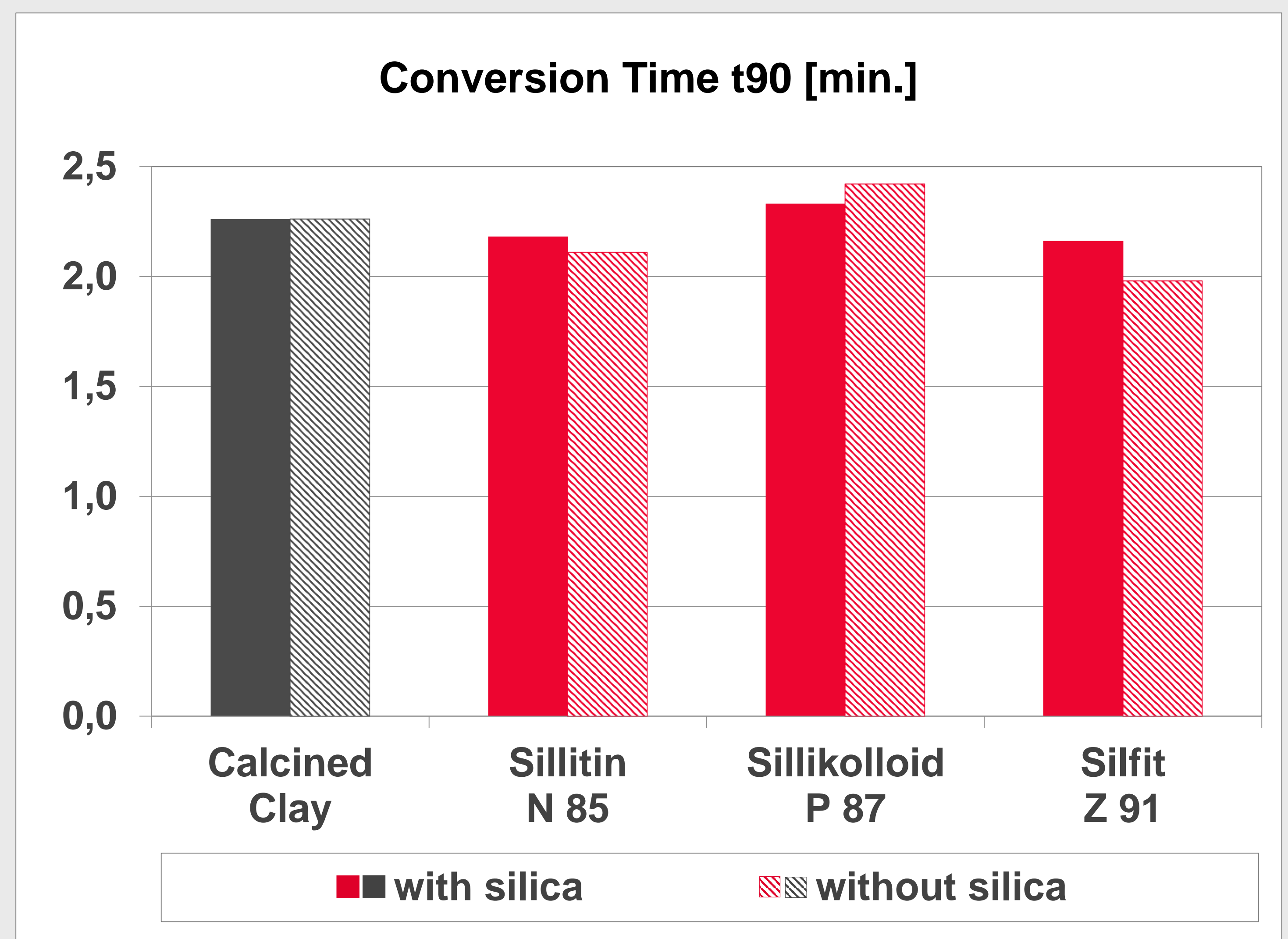
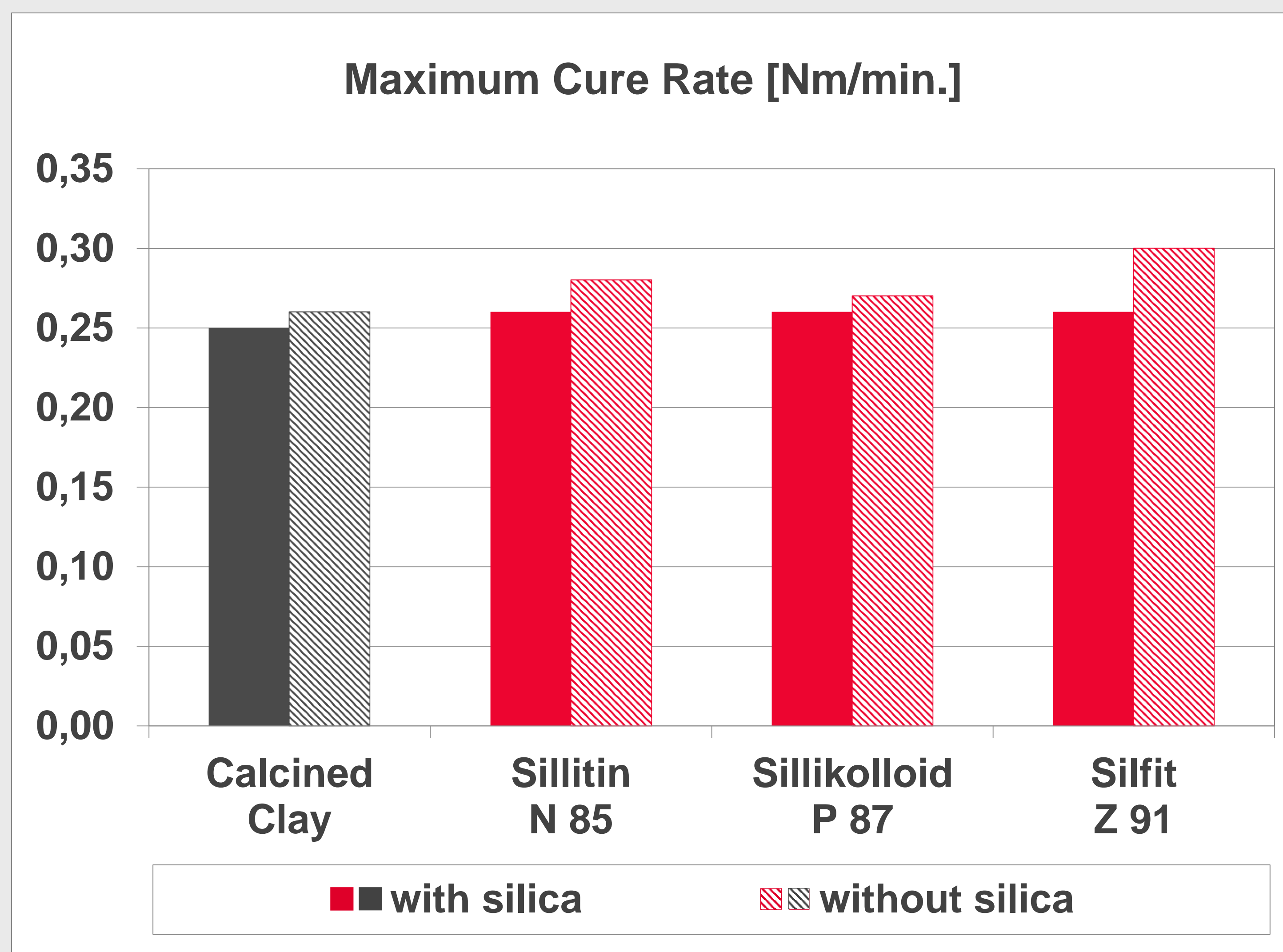
Sillitin N 85

Sillikolloid P 87

Silfit Z 91

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RESULTS



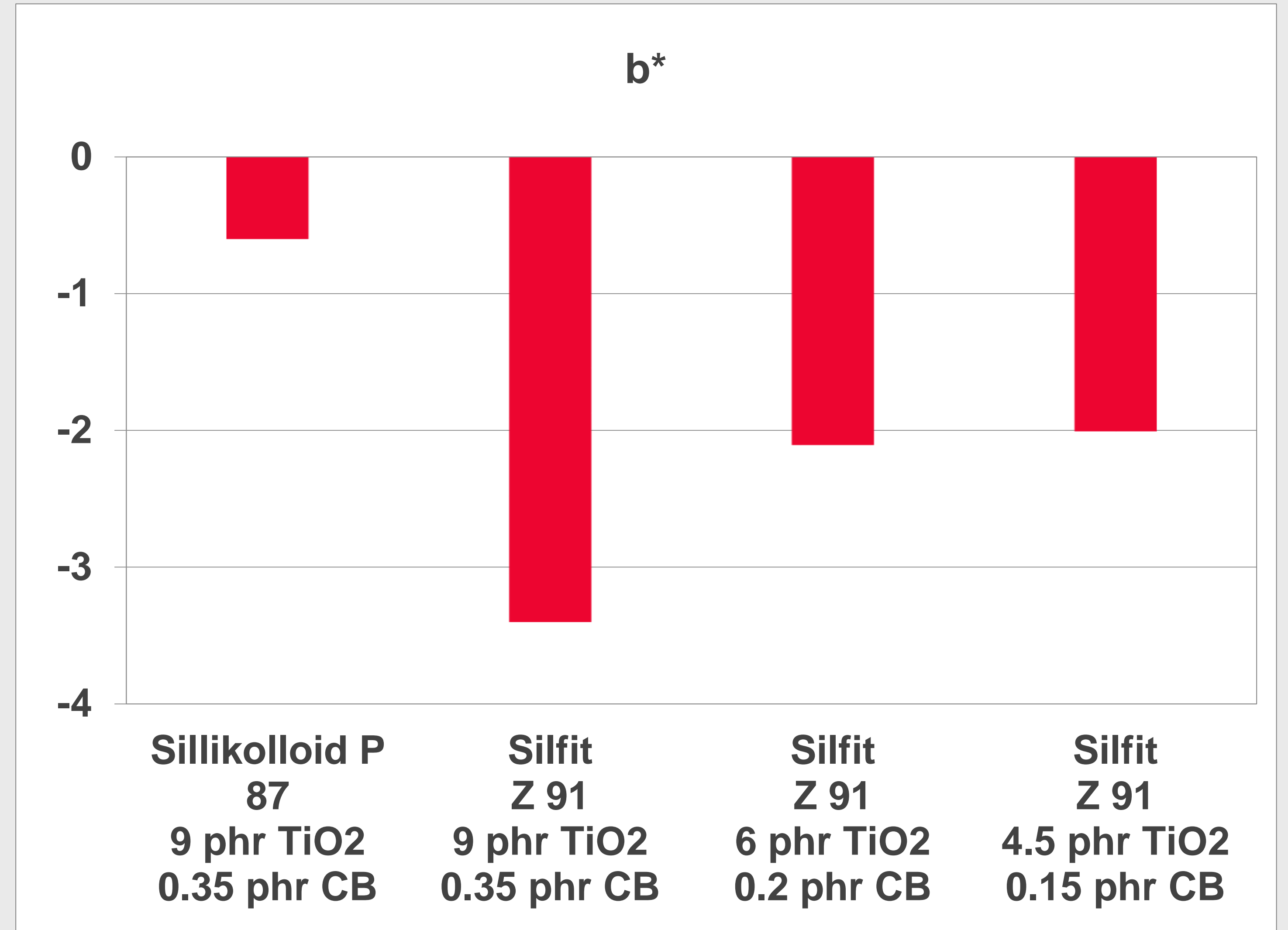
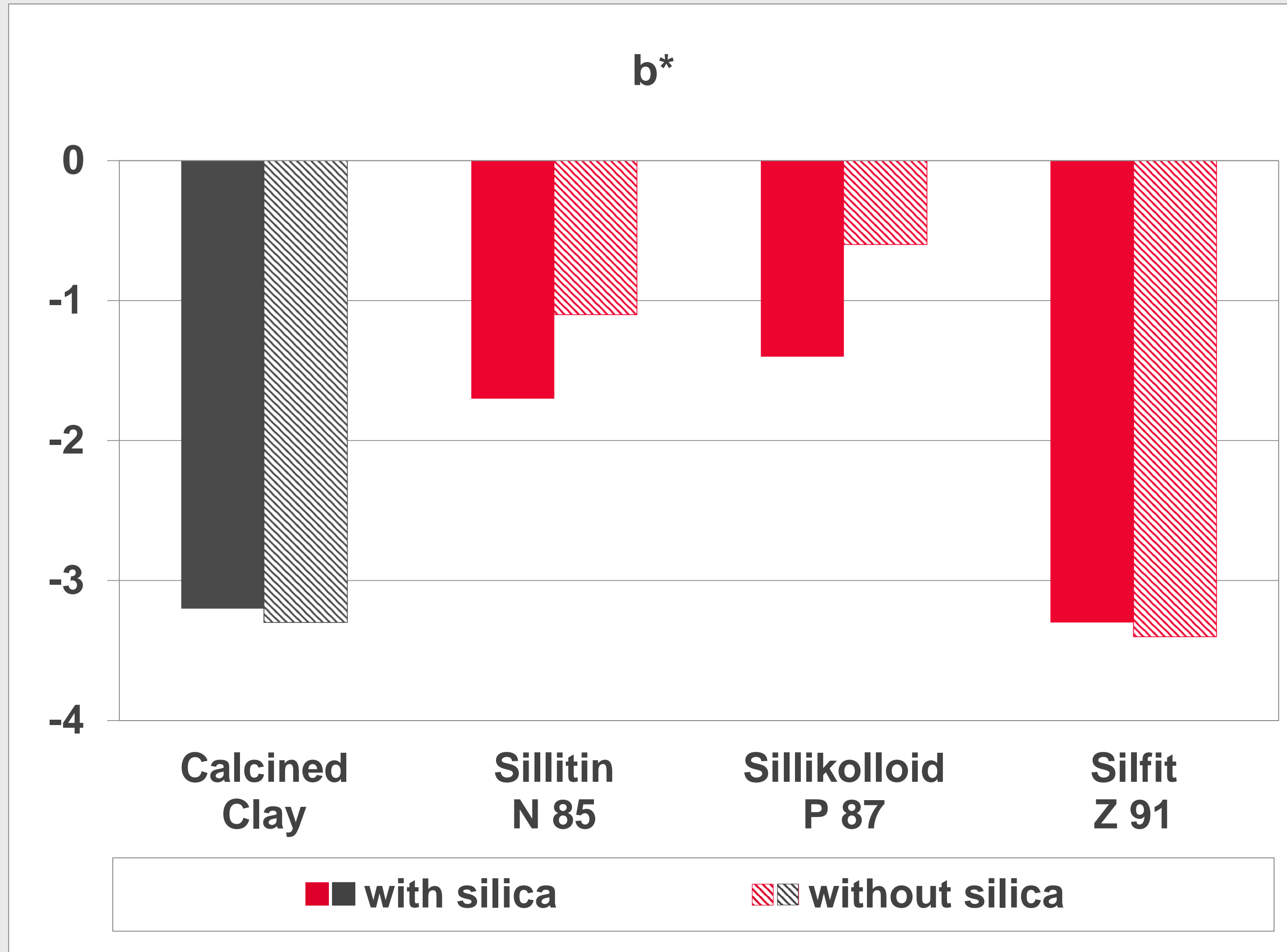
Replacing calcined clay and silica by Silfit Z 91

- increased cure speed and shortened conversion time t_{90}
- higher tensile strength and tear resistance than calcined clay
- no negative effects of immersion in detergent on mechanical properties on the contrary: less change of volume
- potential of further optimization, e.g. higher filler/oil loading less ZnO, leaving out DEG and processing aid

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RESULTS

Color b^* (L^* - and a^* -values are on comparable levels; $L^* \approx 55$, $a^* \approx -1,6$)



lower b^* -value with **Silfit Z 91** than with e.g. **Sillikolloid P 87**
→ lower yellowish tint

reduction of TiO₂ and carbon black loading possible
→ no loss regarding color neutrality

Prevention of Filler Induced Mould Fouling During Injection

	Sillitin N 85	Sillikolloid P 87	Silfit Z 91
extruded amount [kg]	2.5	2.5	5.0
throughput [g/min.]	388	404	454
deposits on the metal insert			