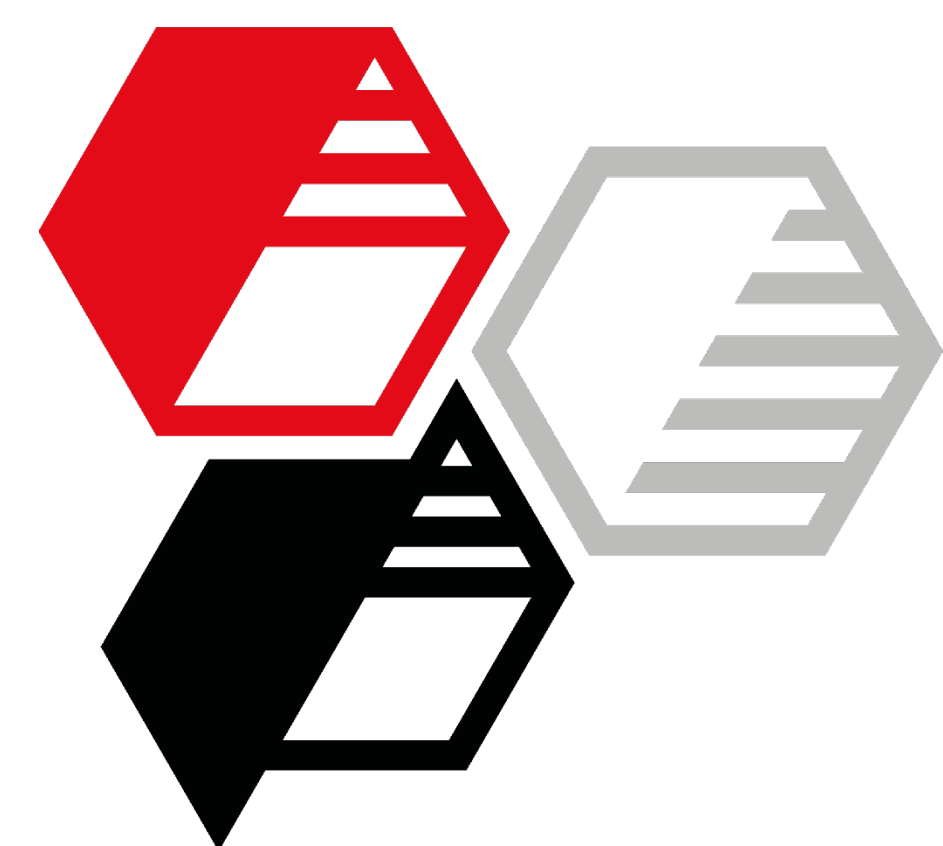


Neuburg Siliceous Earth (NSE) in FKM, peroxide cured, acid resistant and tintable alternative to carbon black N 990

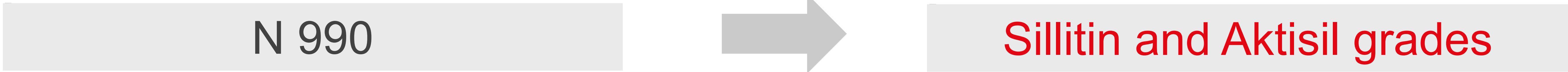


Issue

Wollastonite very weak	Barium sulfate weak	After exposure to acetic acid pH3, 168 h / 100 °C	Wollastonite	Original size	Barium sulfate
acid resistance in peroxide cured FKM					
Carbon black N 990 good, but not tintable		Volume	+500 %	-	+120 %
		Hardness	-30 Shore A	-	-32 Shore A
		Tensile strength	-86 %	-	-37 %

Objective

Performance of **NSE** in peroxide cured FKM



Formulation

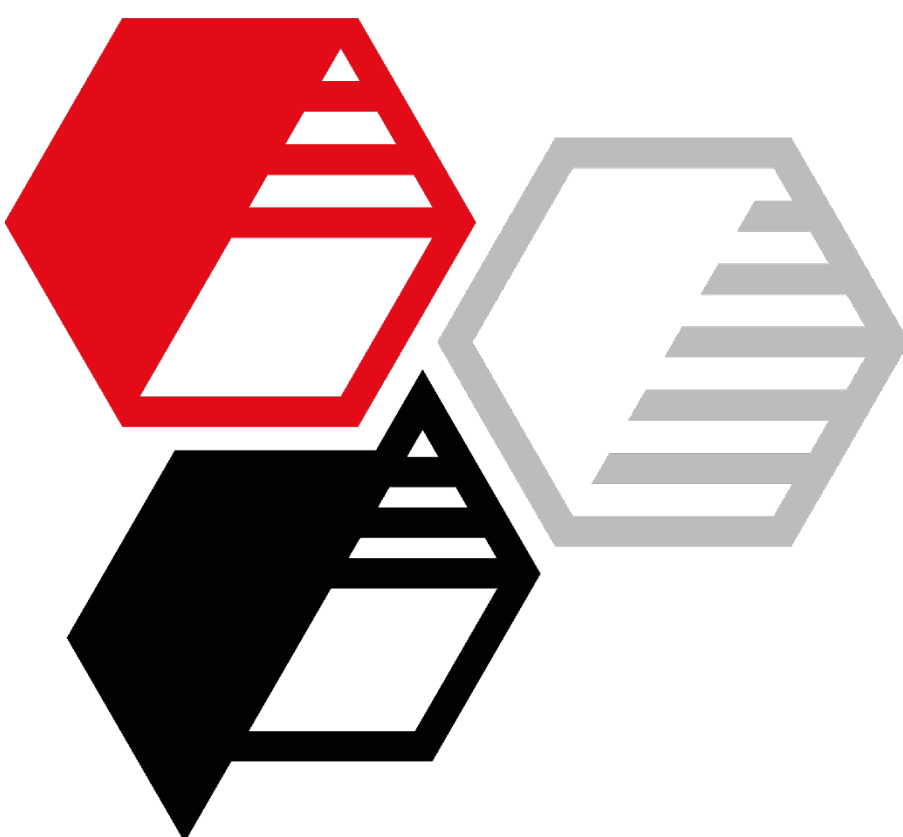
Hardness range: 65 – 70 Shore A		N 990	NSE
Viton GAL-200S	66 % fluorine, 25 MU (ML1+10, 121 °C) terpolymer (HFP+VFD+TFE)	100	100
Zinkoxyd aktiv	ZnO	3	3
Diak No. 7	Coactivator TAIC	3	3
Varox DBPH-50	2,5-dimethyl-2,5-di(tertbutylperoxy)-hexane	2	2
N 990	Carbon black	30	-
NSE	Neuburg Siliceous Earth	-	30

Summary

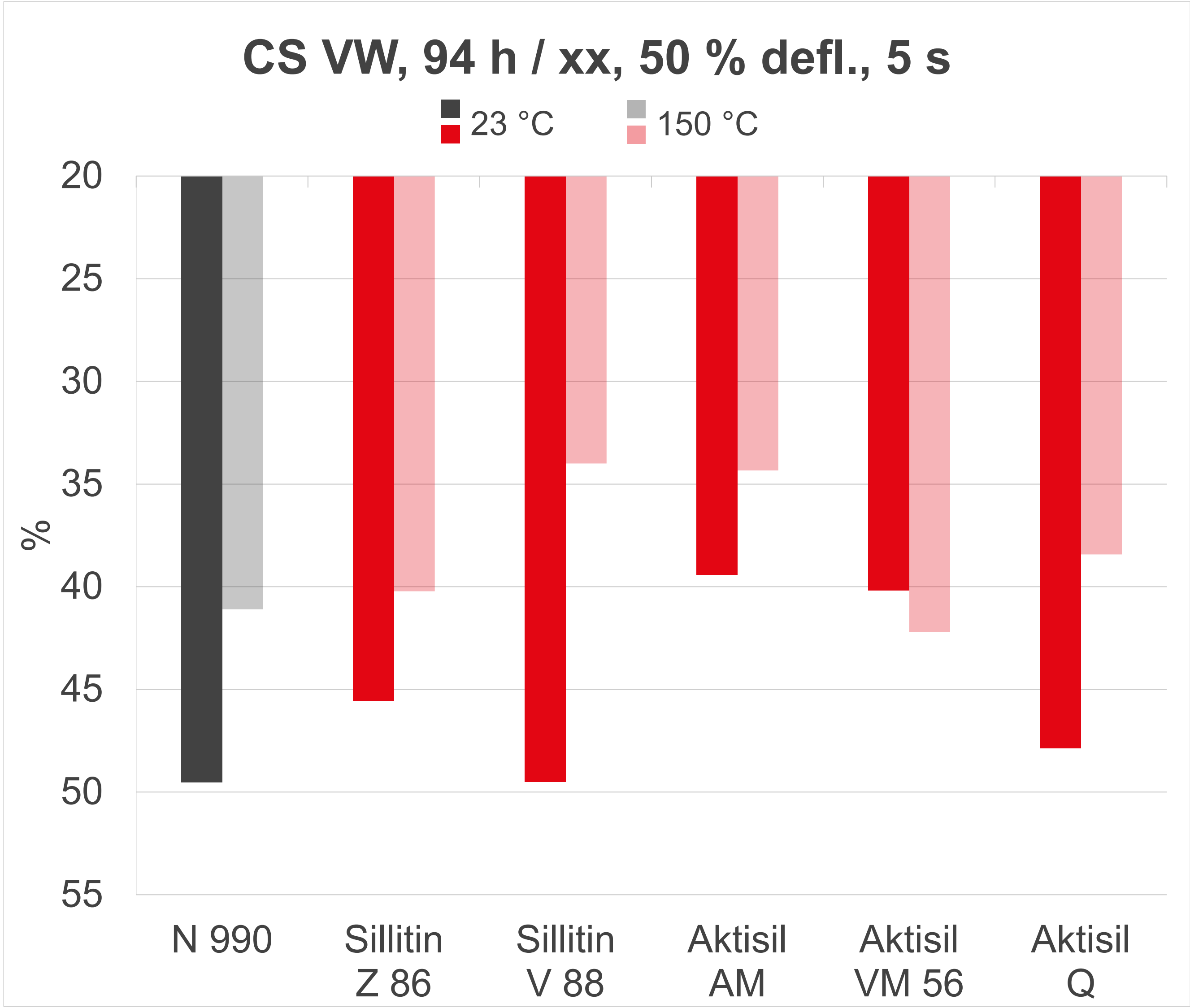
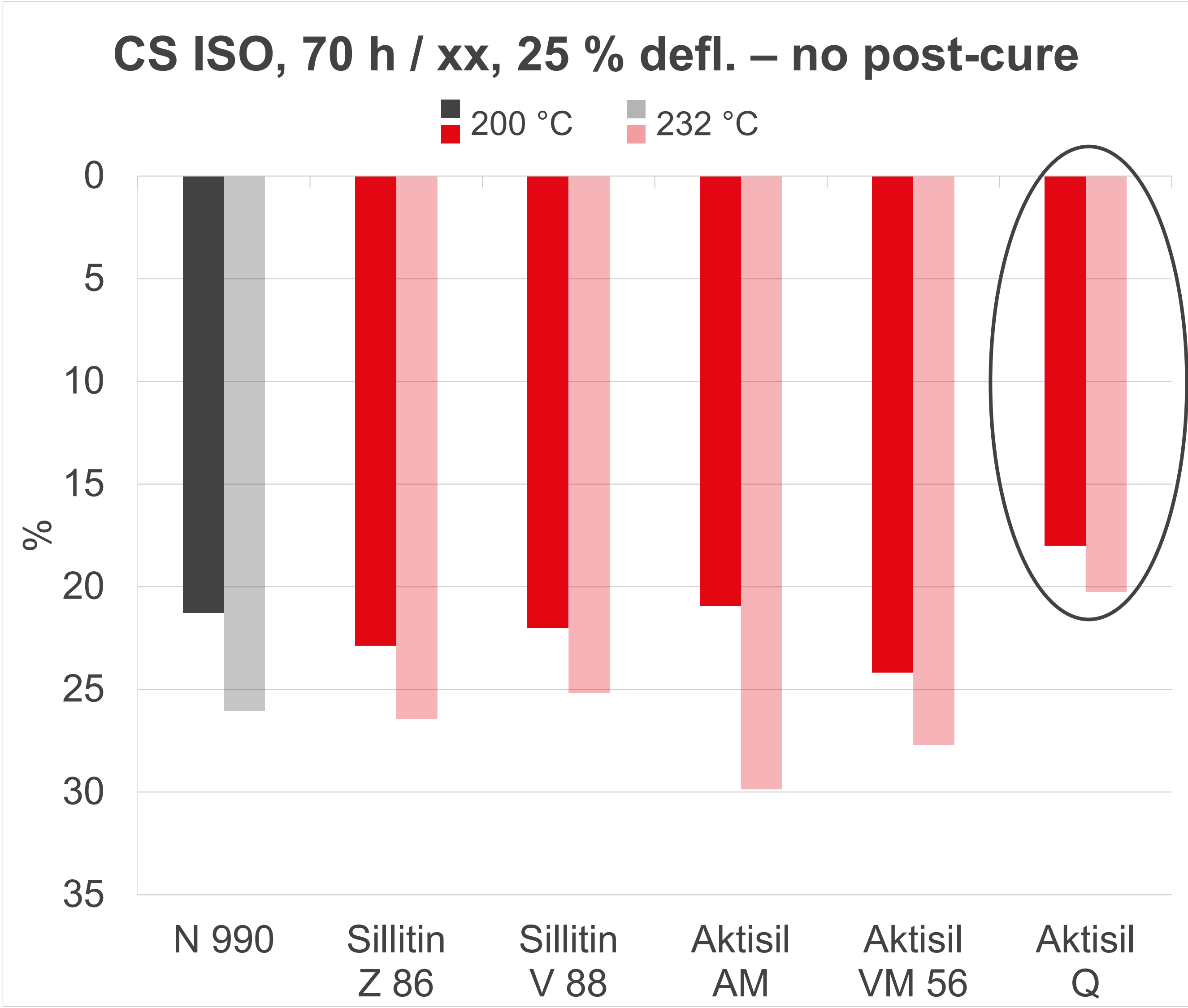
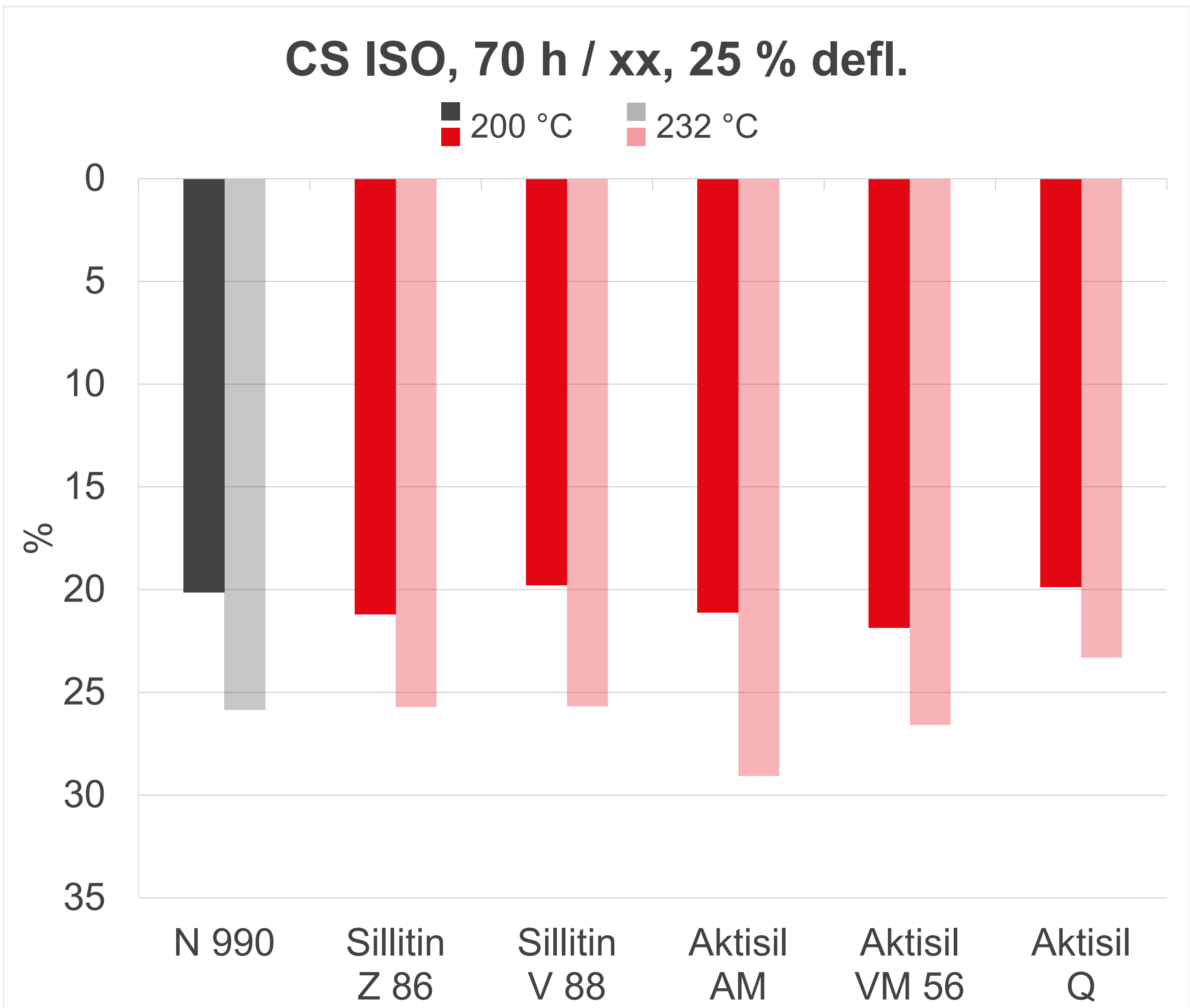
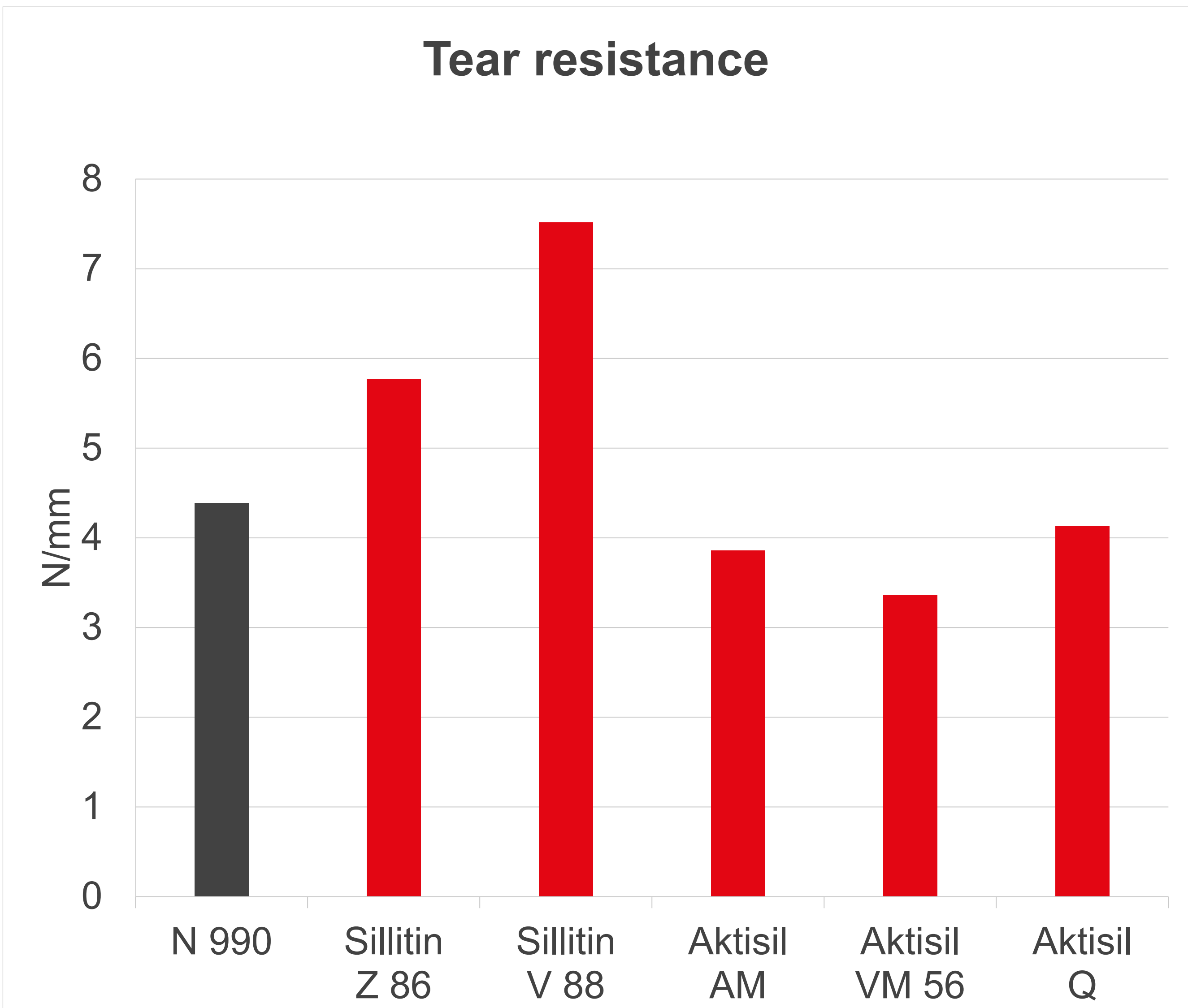
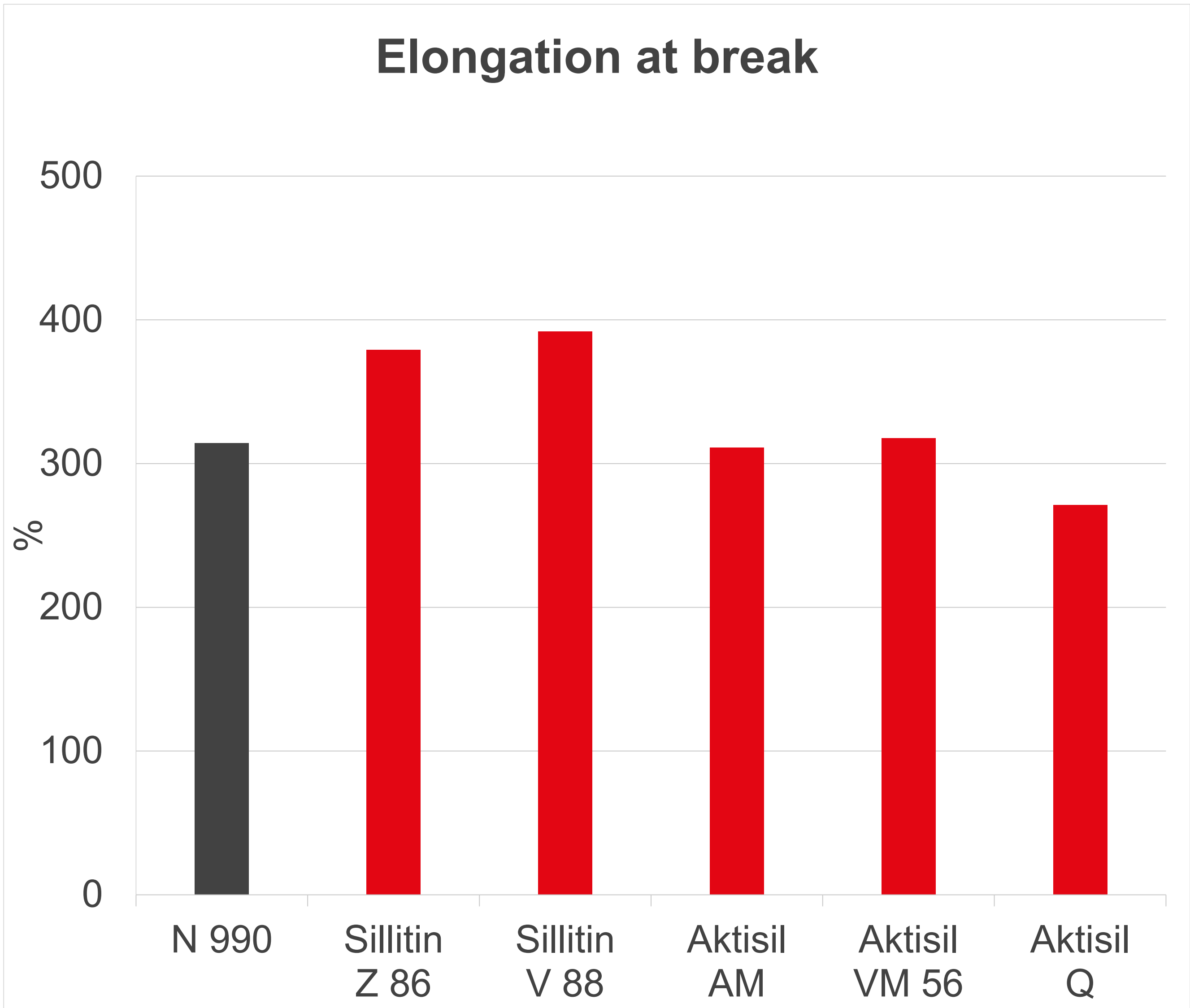
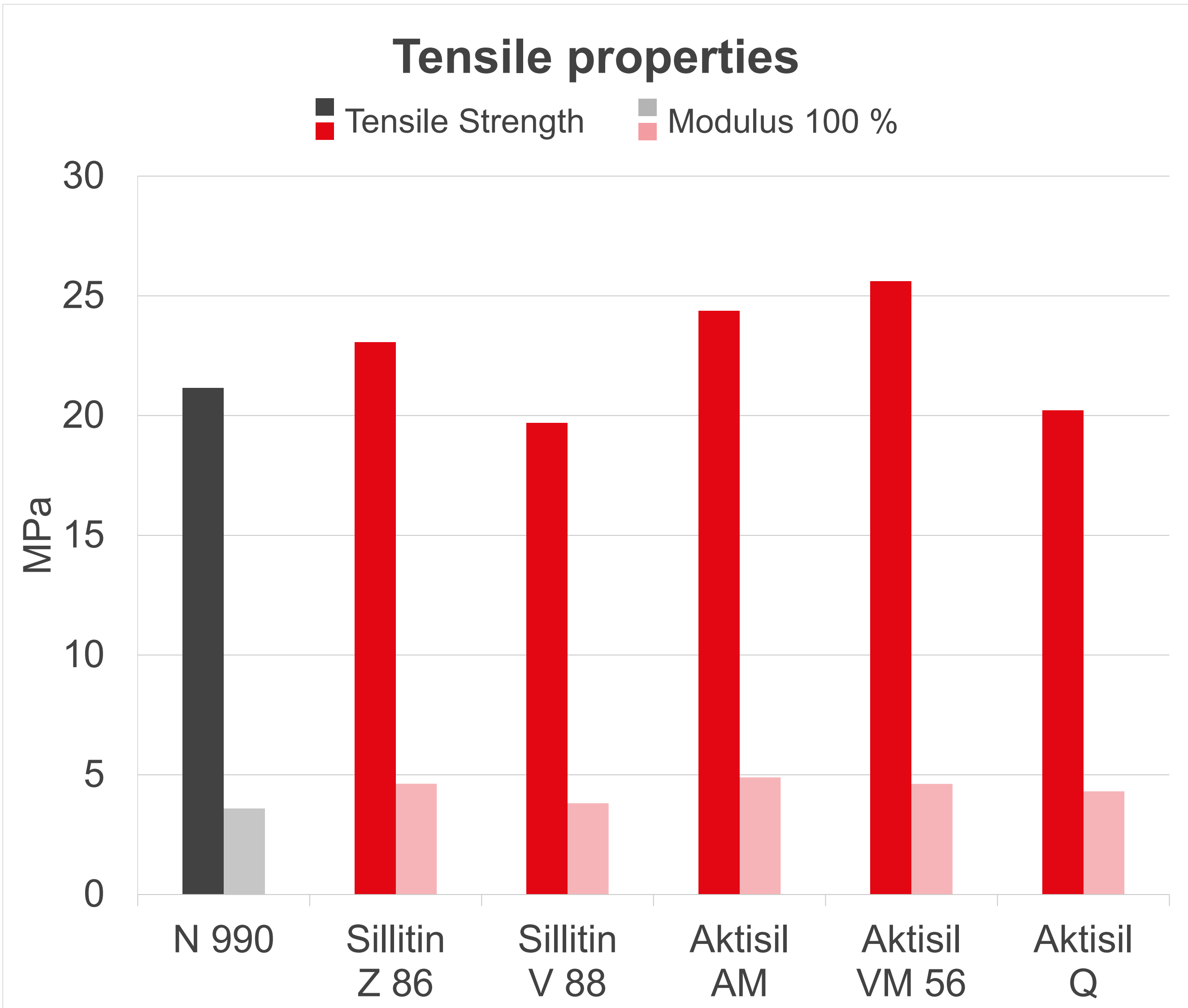
Benefits of NSE vs. N 990	Sillitin Z 86	Sillitin V 88	Aktisil AM	Aktisil VM 56	Aktisil Q
Tintable	yes	yes	yes	yes	yes
Cure speed			+		+
Viscosity	+	+	+	+	+
Tensile strength	+	=	+	+	=
Elongation at break	+	+	=	=	
Modulus 100 %	+	=	+	+	+
Tear resistance	+	+	=	=	=
CS ISO 200 °C	=	=	=	=	=
CS ISO 200 °C, no post-cure	=	=	=	=	+
CS ISO 232 °C	=	=	=	=	=
CS ISO 232 °C, no post-cure	=	=	=	=	+
CS VW 23 °C	=	=	+	+	=
CS VW 150 °C	=	+	+	=	=
Hot air resistance 210 °C			+	+	+
Hot air resistance 230 °C			=	+	+
Fuel resistance	=	=	=	=	=
Oil resistance	+	+	+	+	+
Resistance to acetic acid			=	=	+

+ improvement
+ improvement, best grade
= no effect

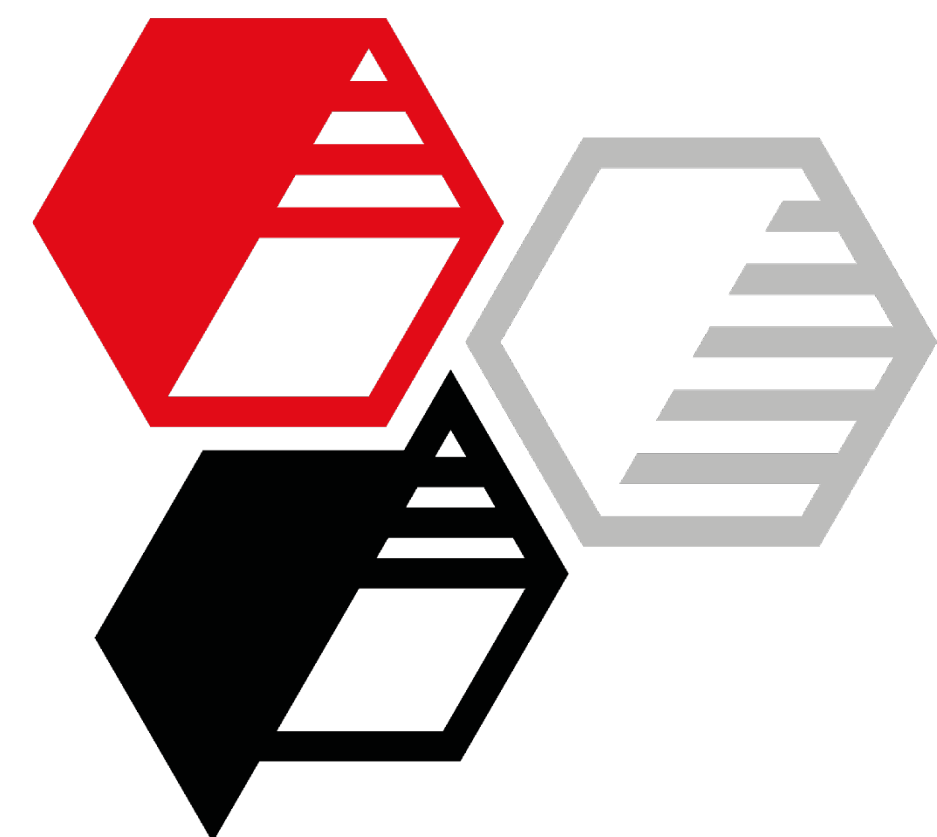
Neuburg Siliceous Earth (NSE) in FKM, peroxide cured, acid resistant and tintable alternative to carbon black N 990



Results – samples post-cured, 2 h / 232 °C



Neuburg Siliceous Earth (NSE) in FKM, peroxide cured, acid resistant and tintable alternative to carbon black N 990



Results – samples post-cured, 2 h / 232 °C

