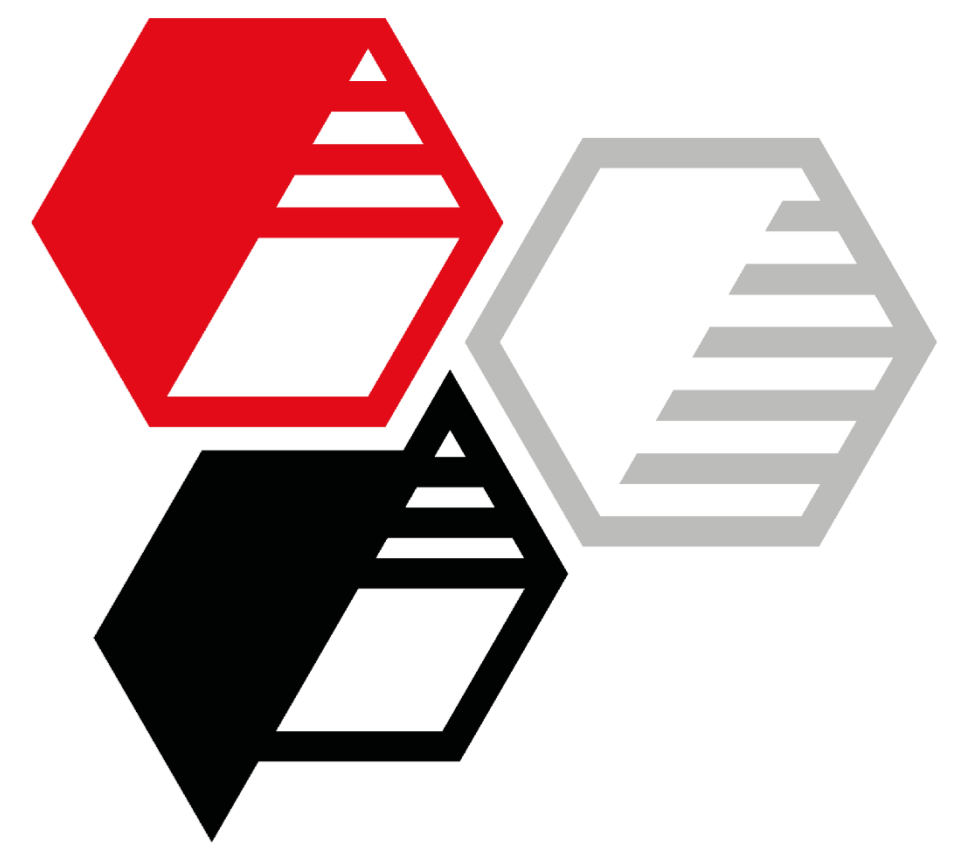
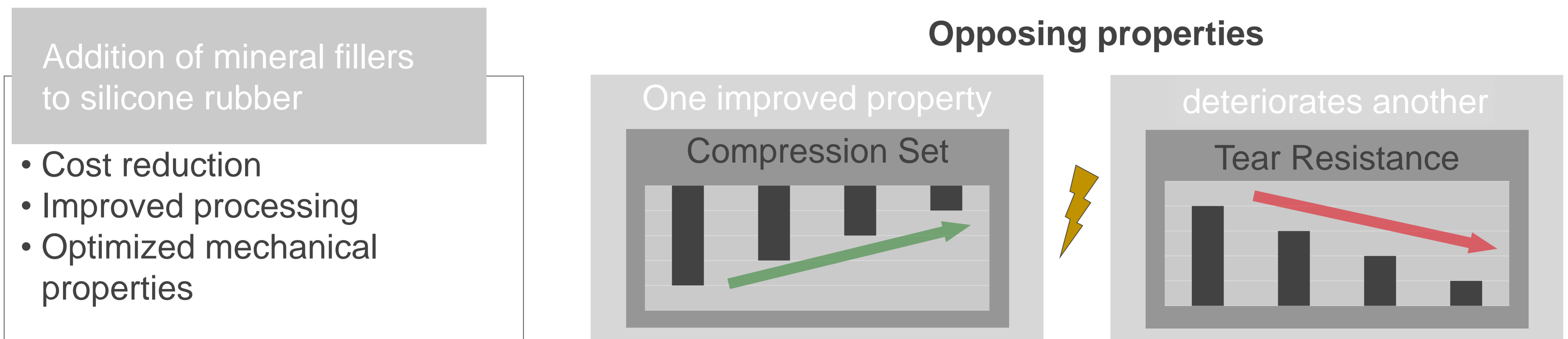


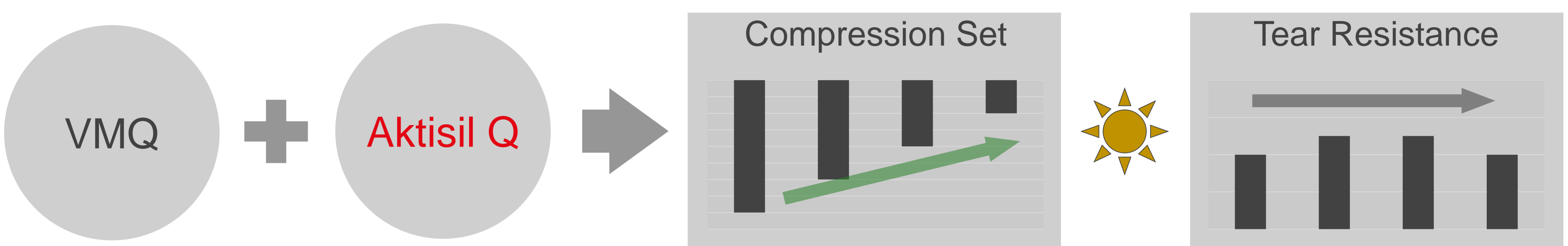
Peroxide cured silicone rubber – optimization of property combinations with Aktisil Q



Status quo



Objective



Formulation

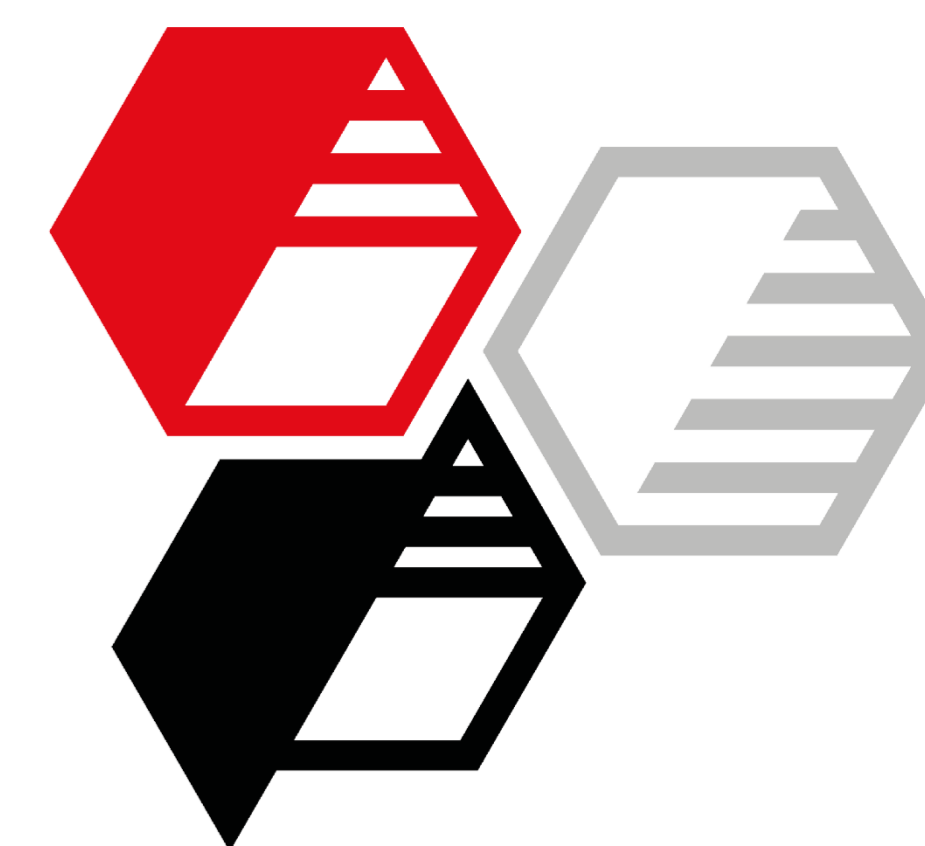
in phr	Elastosil R 401 universal type			Elastosil R 420 high tear resistance			Elastosil R 752 high damping		
R 401/50	100								
R 401/40		100	100						
R 420/50				100					
R 420/40					100	100			
R 752/70							50		
R 752/50							50	100	100
Aktisil Q	-	12.5	25	-	12.5	25	-	12.5	25
Hardness Shore A *									
Curing Agent C6 (1.2 phr) ¹	46	39	44	50	41	46	55	52	59
Perk. BC-40S-ps (0.99 phr) ²	44	39	43	50	38	44	56	51	59

* all results are based on specimens that have been post-cured 4 hours at 200 °C

¹ peroxide mainly for moldings: 2,5-bis-(t-butylperoxy)-2,5-dimethylhexane, 45 %; curing conditions: 5' / 165 °C

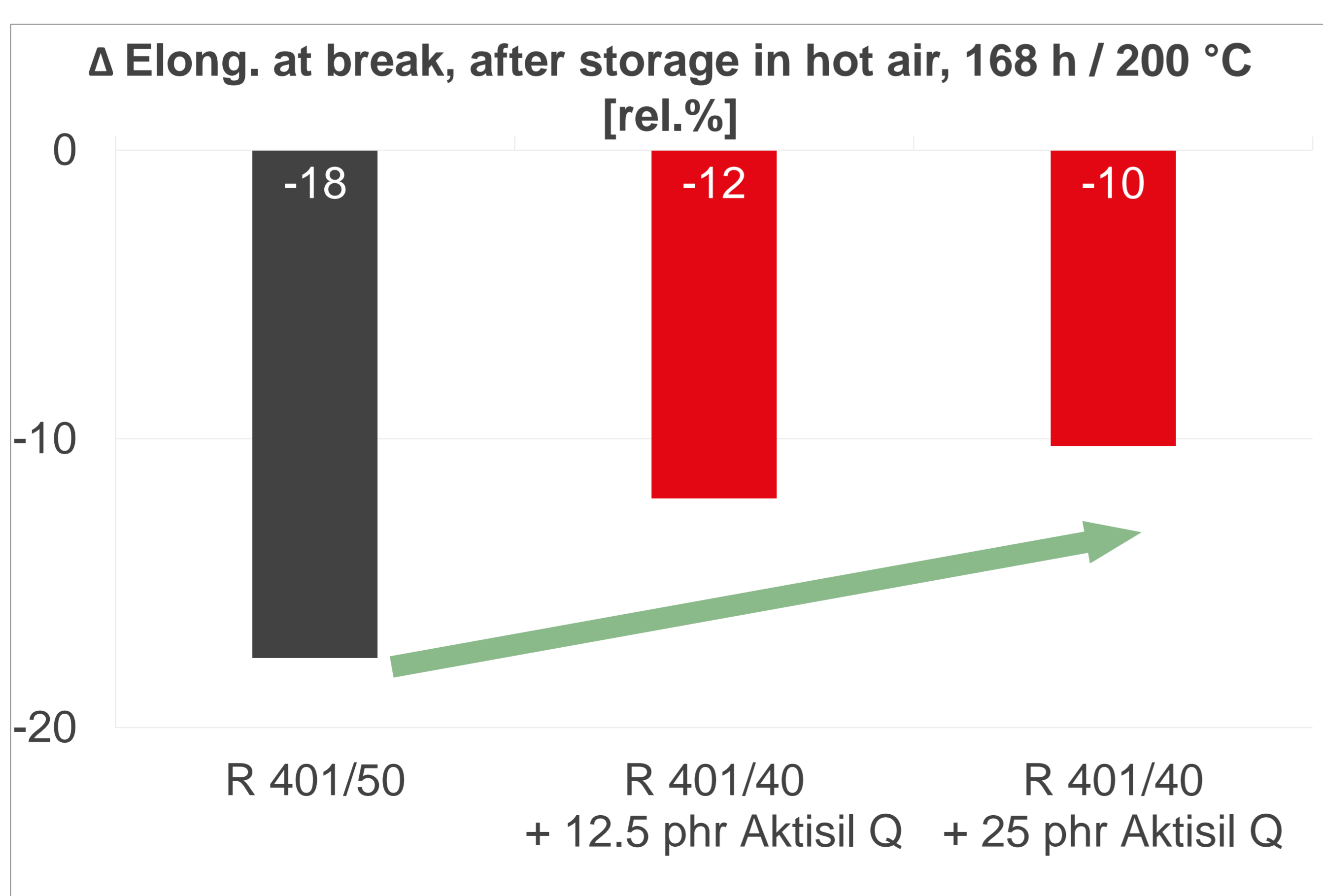
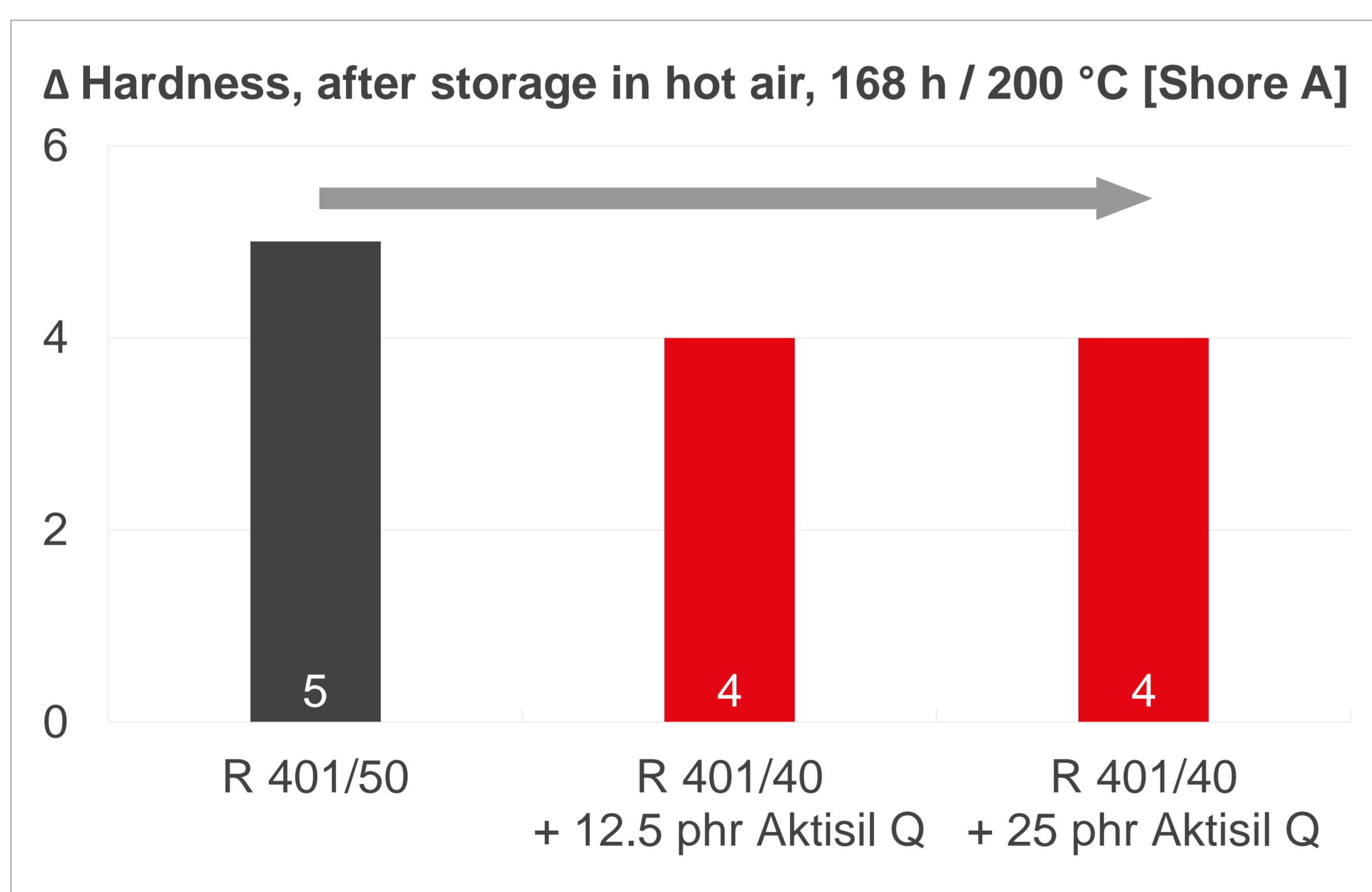
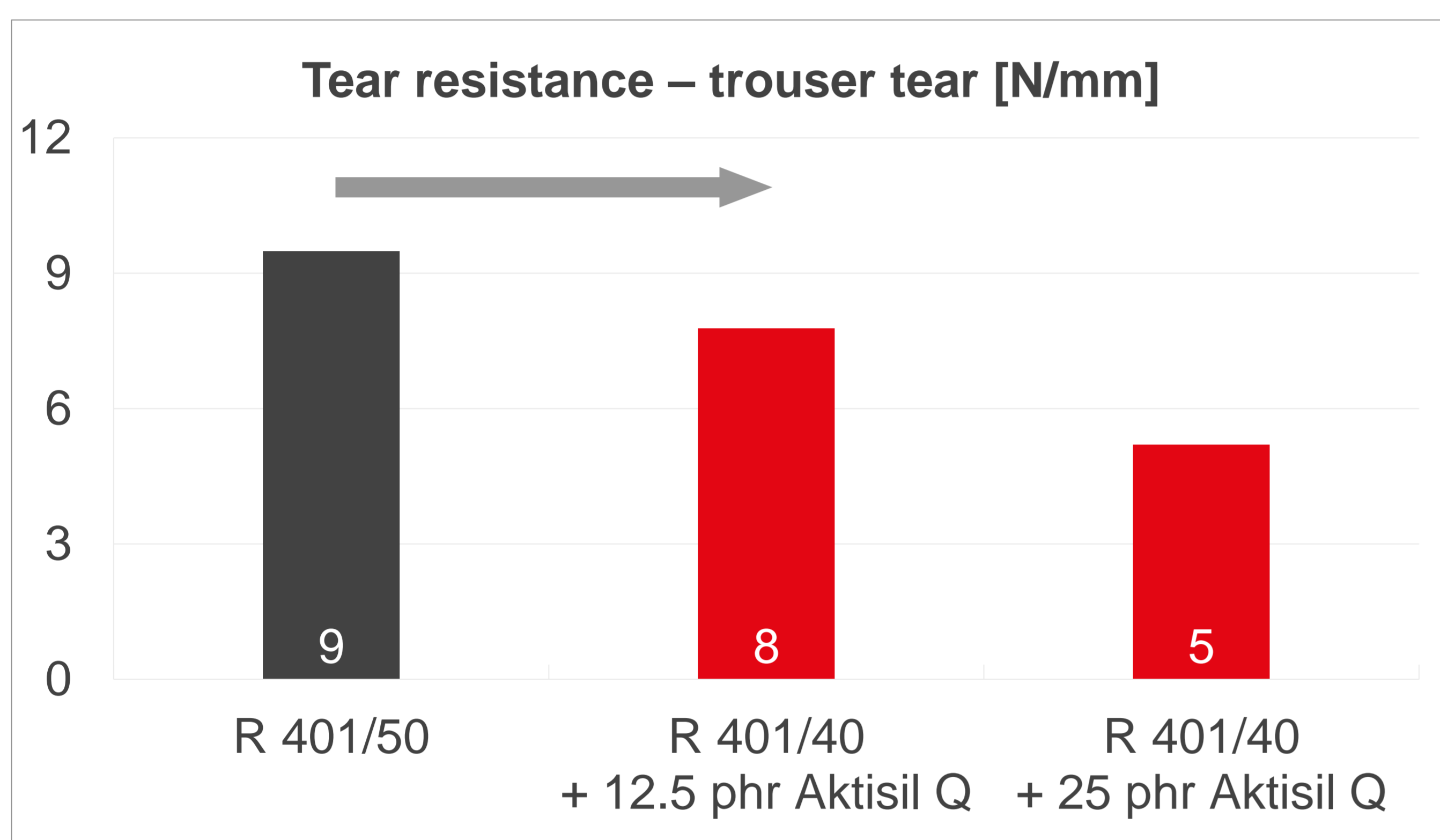
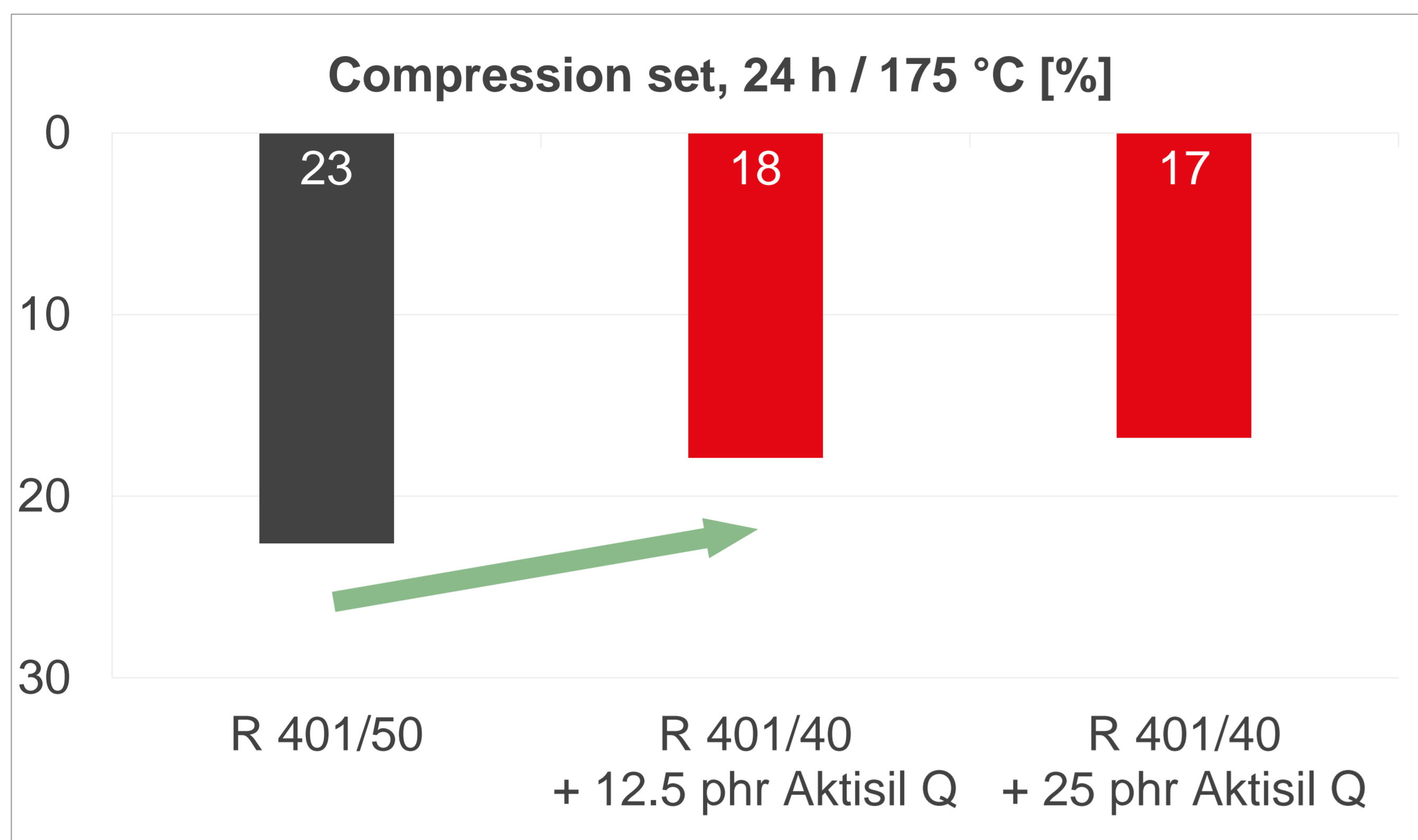
² peroxide mainly for moldings: dicumyl peroxide, 40 %; curing conditions: 5' / 180 °C

Peroxide cured silicone rubber – optimization of property combinations with Aktisil Q

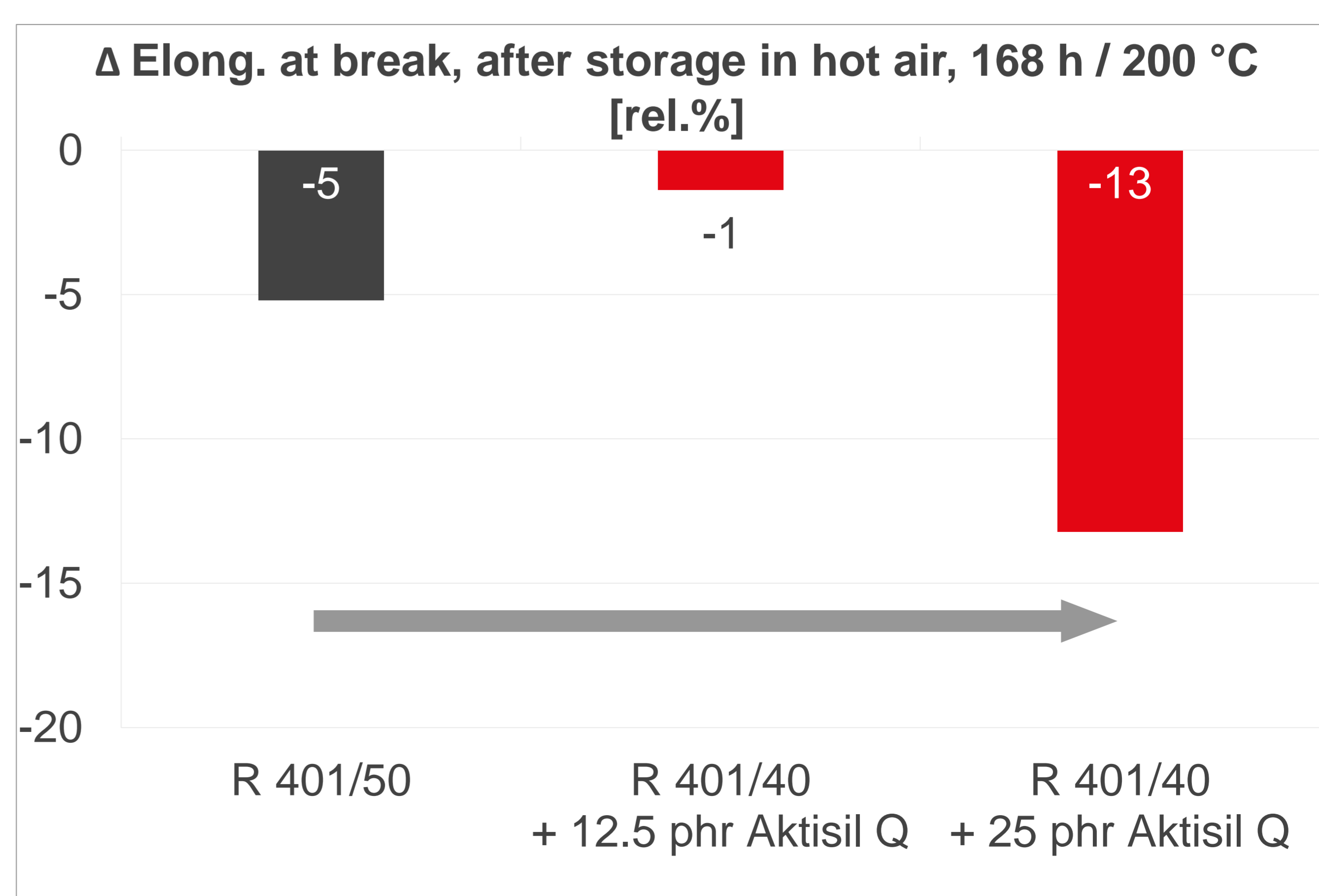
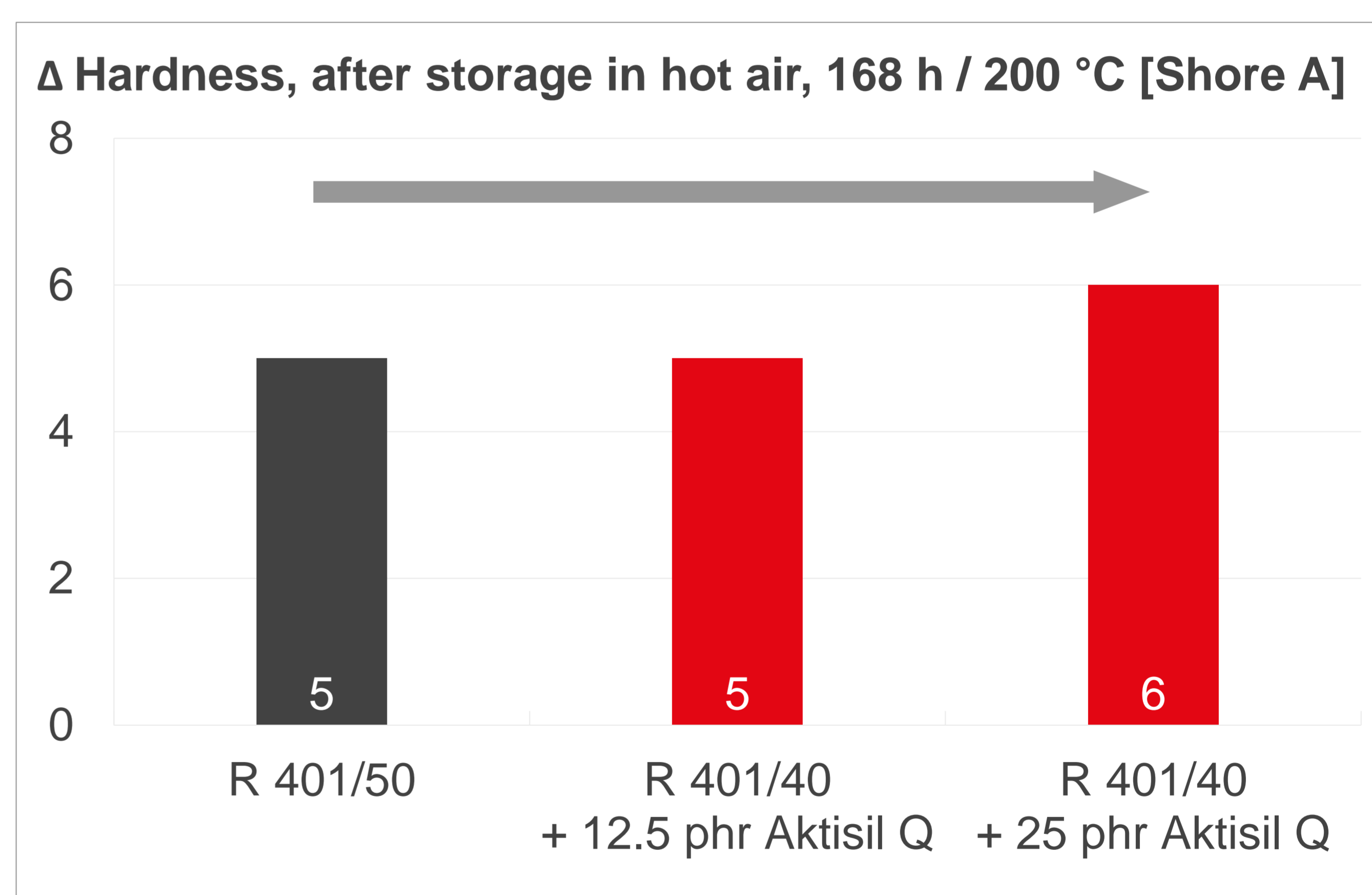
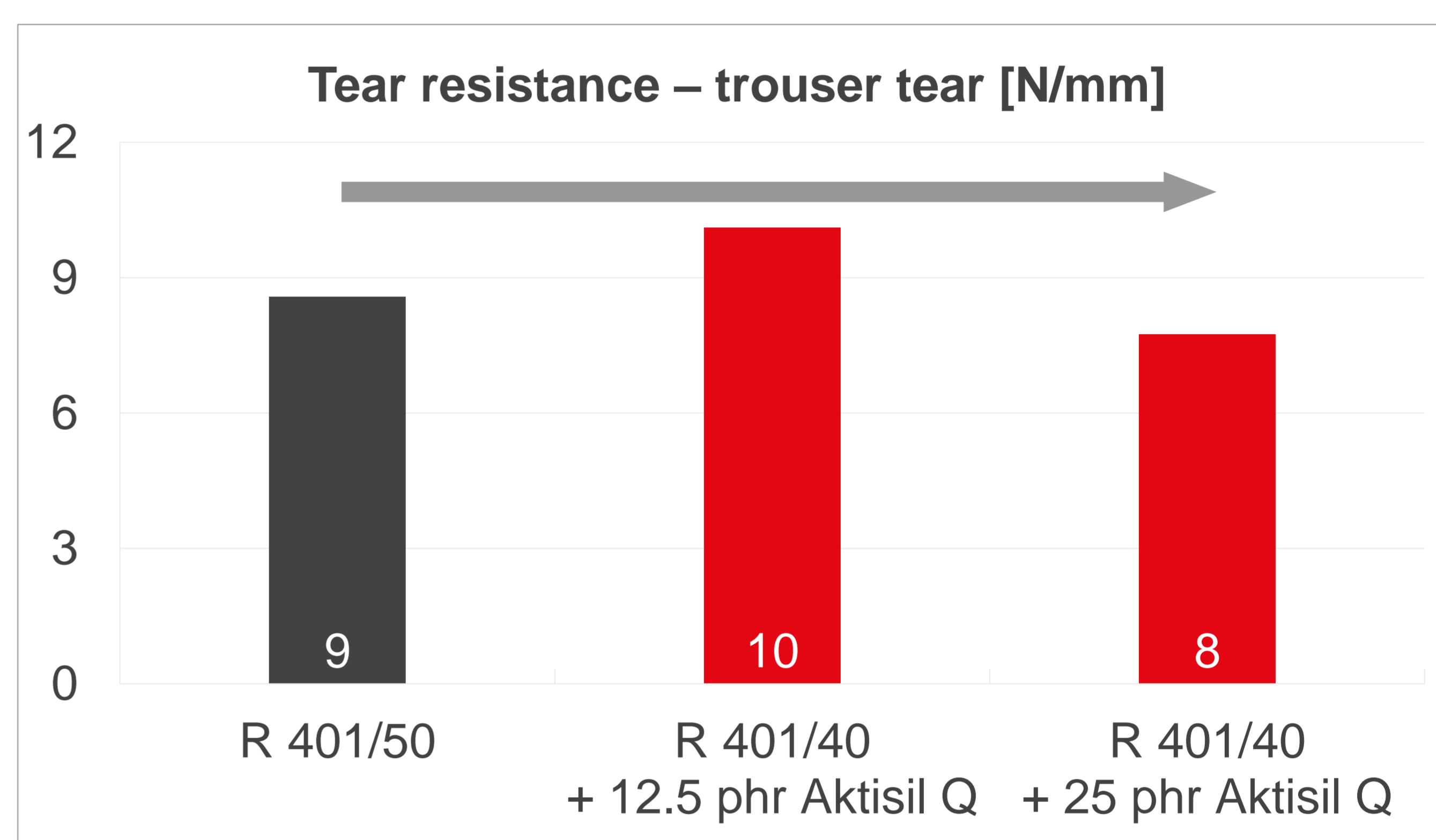
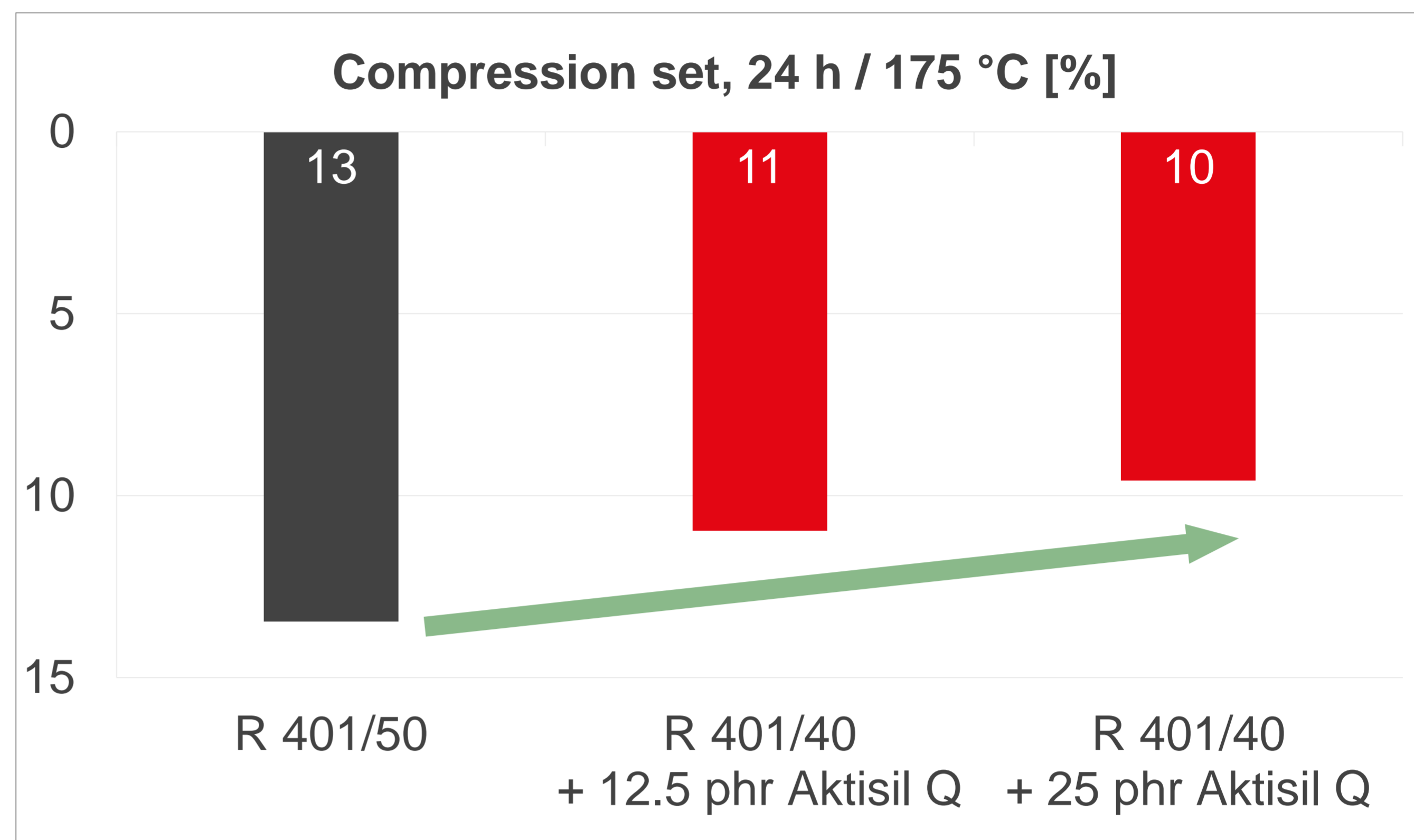


Results

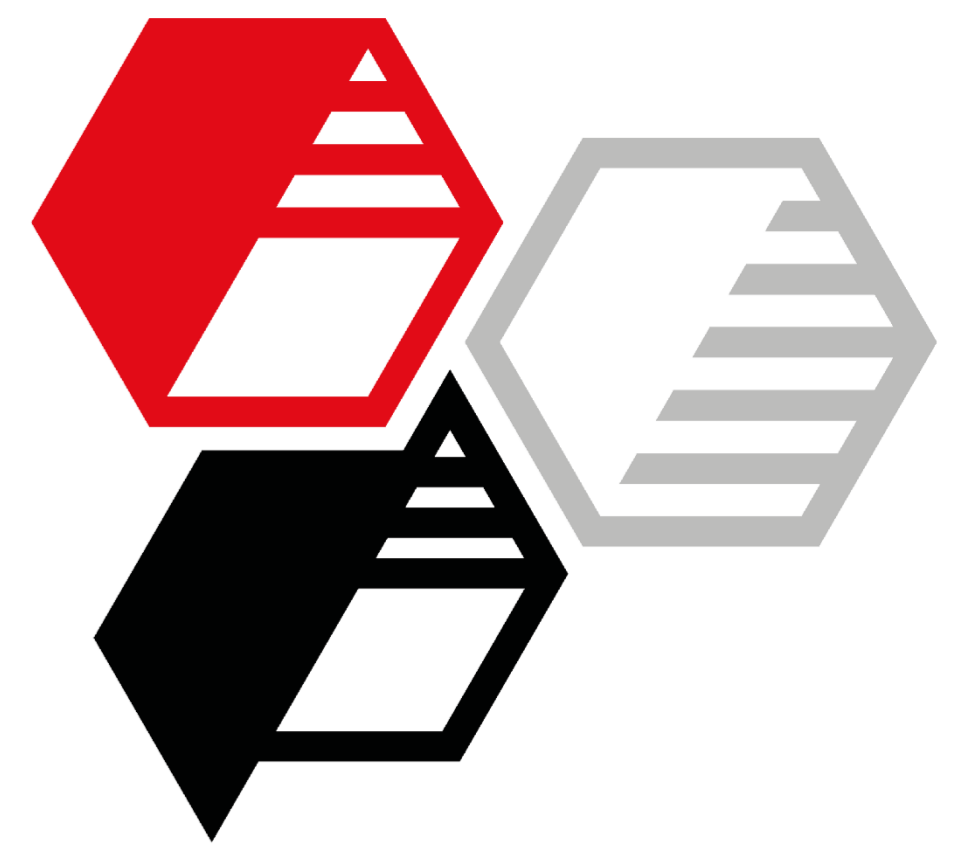
Curing Agent C6



Perkadox BC-40S-ps

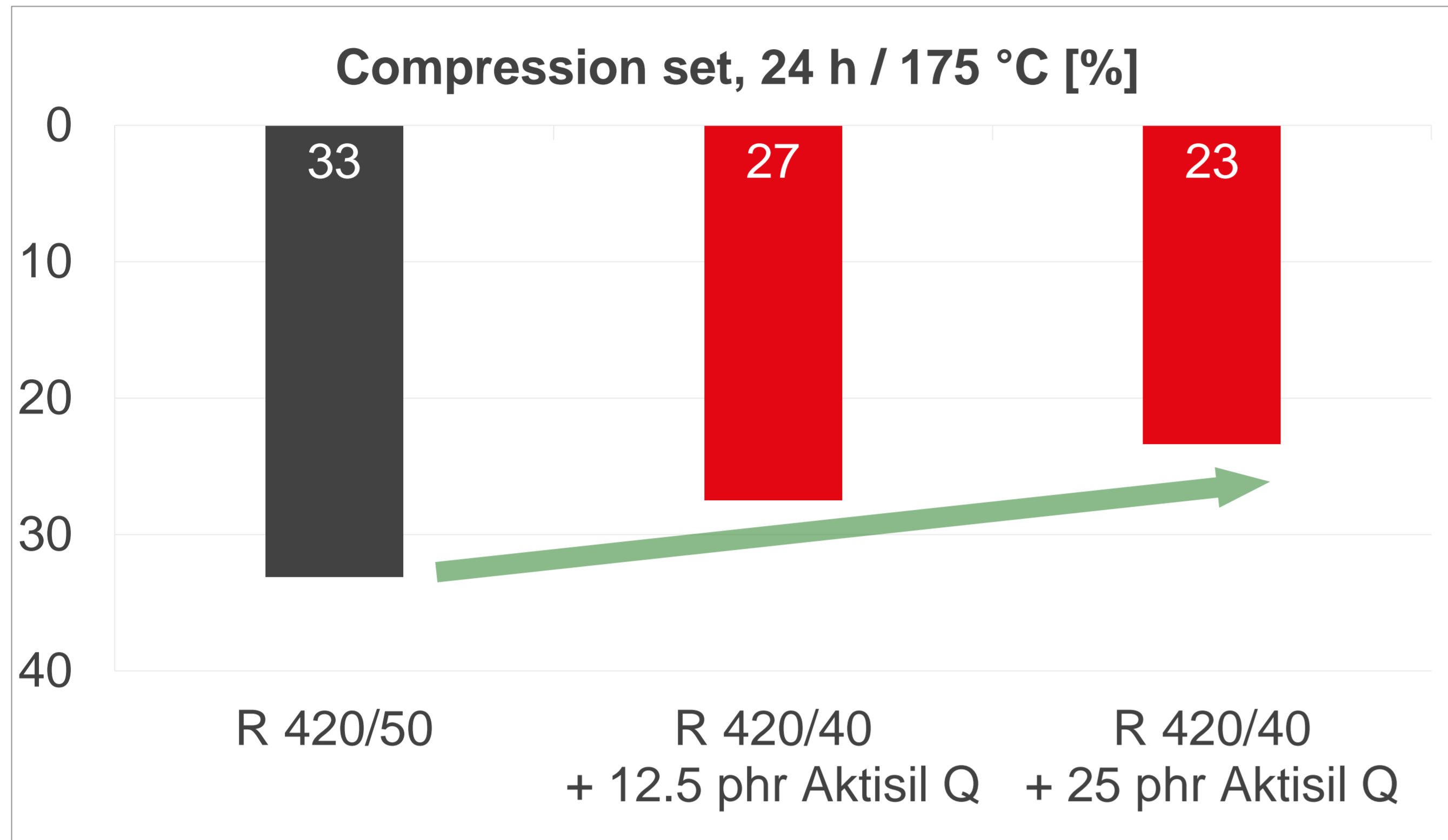


Peroxide cured silicone rubber – optimization of property combinations with Aktisil Q

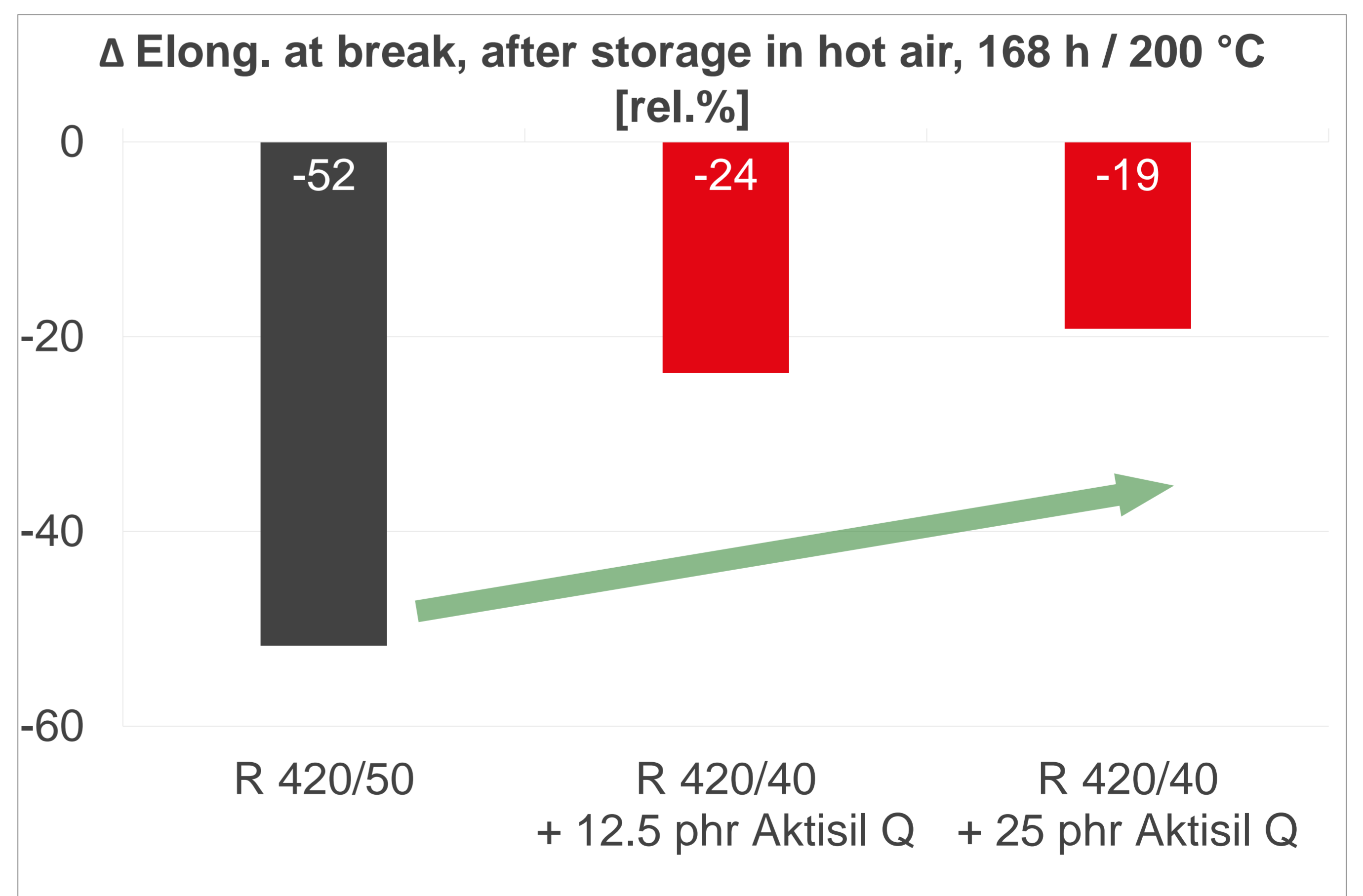
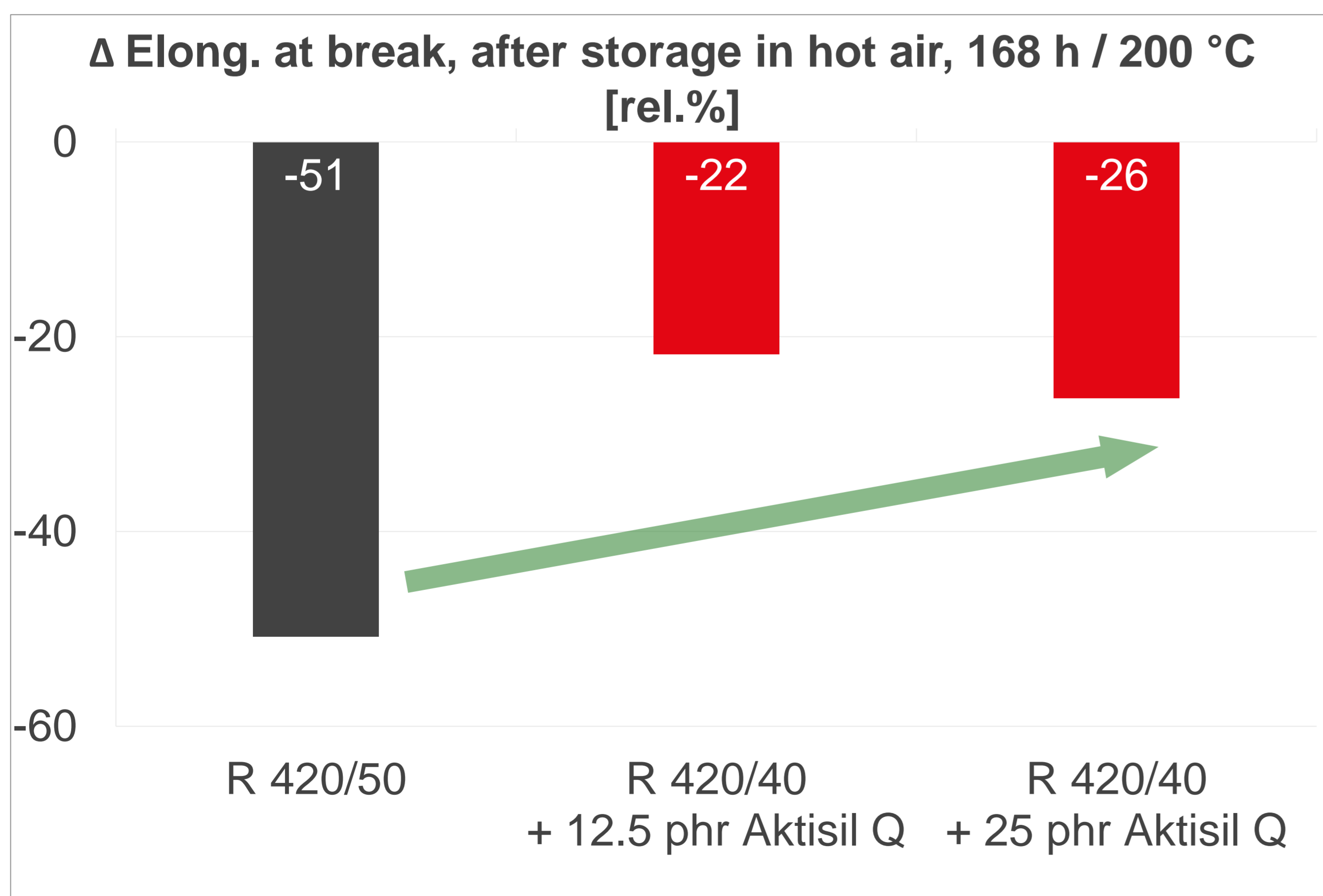
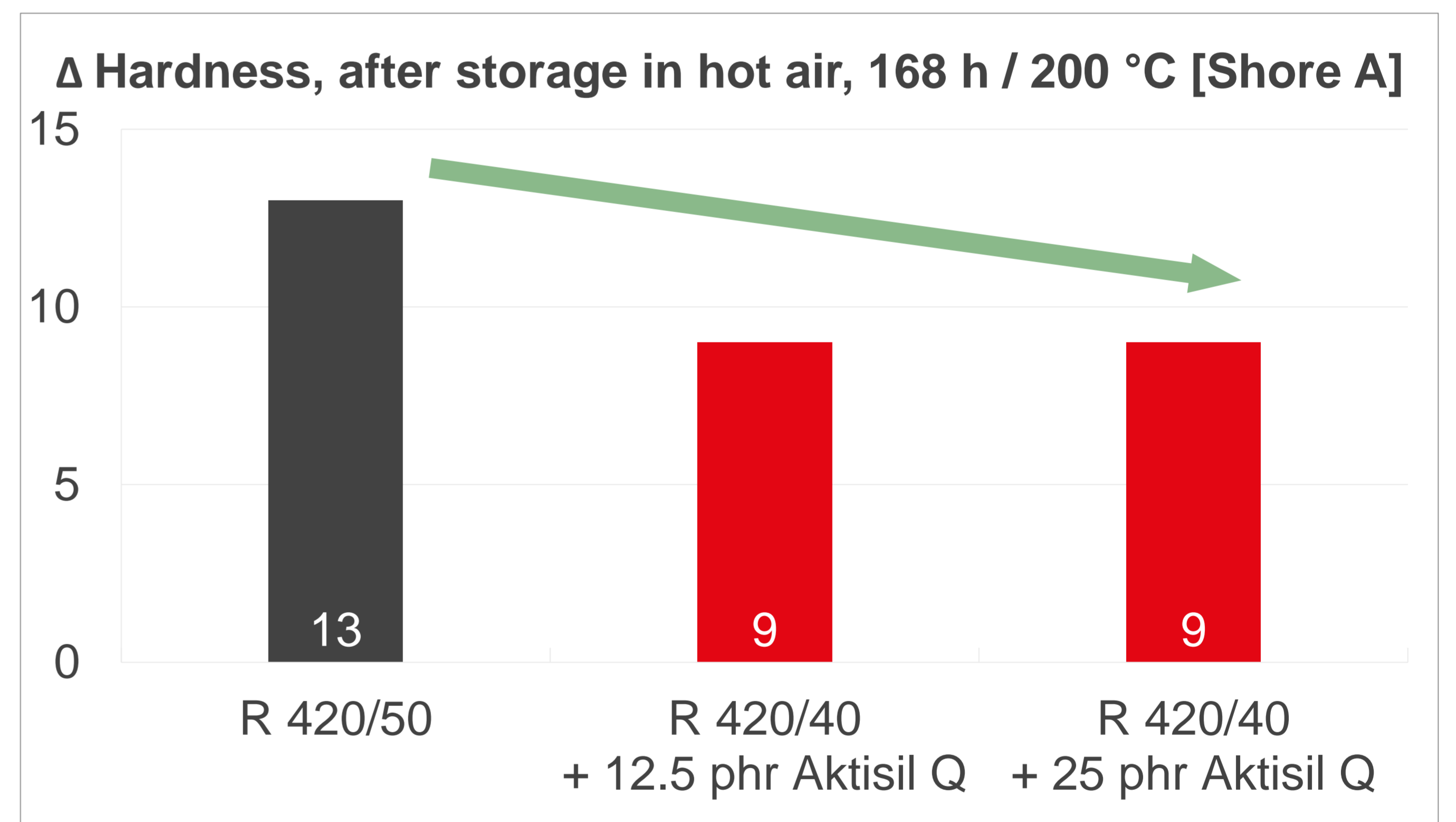
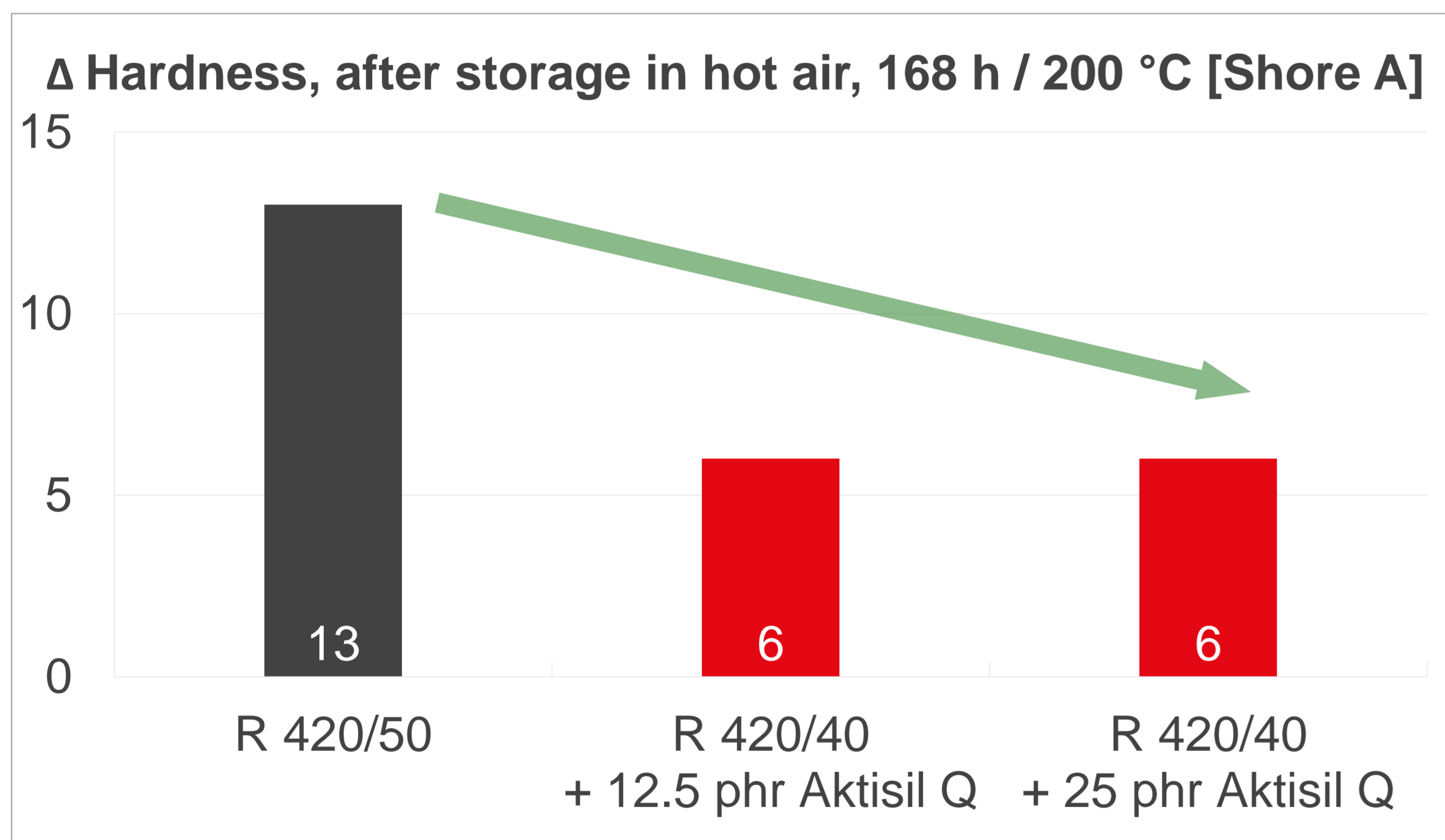
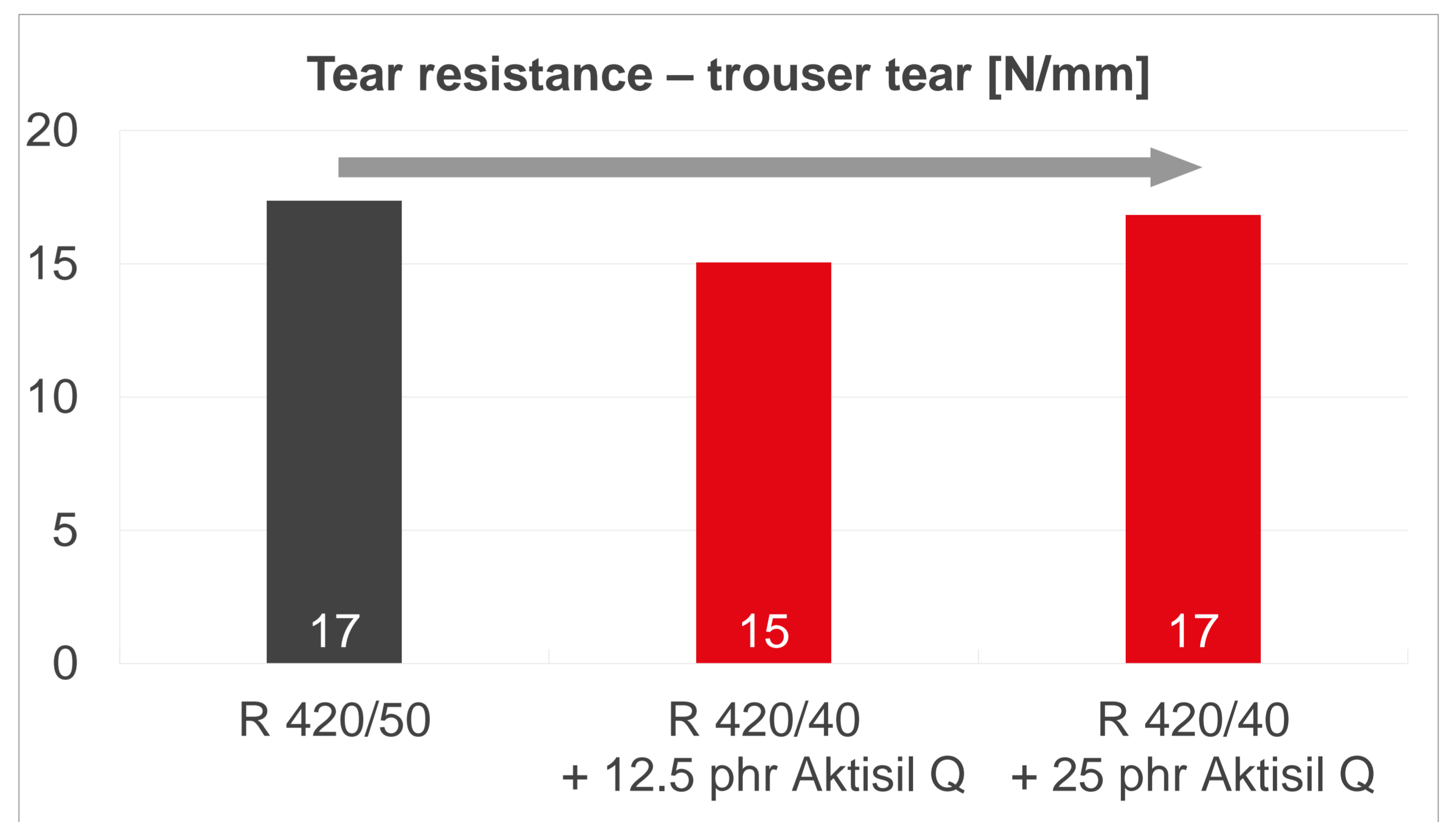
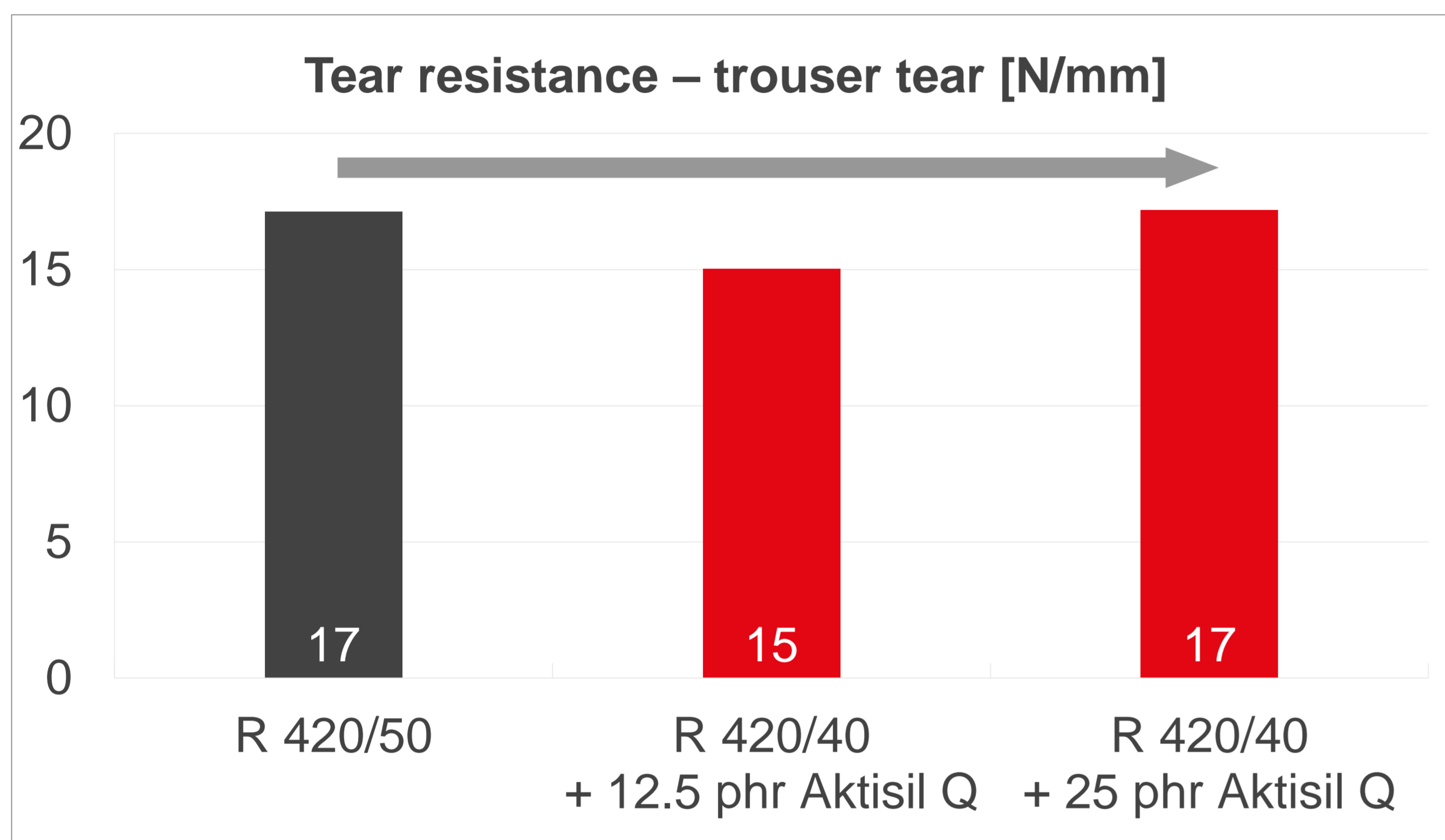
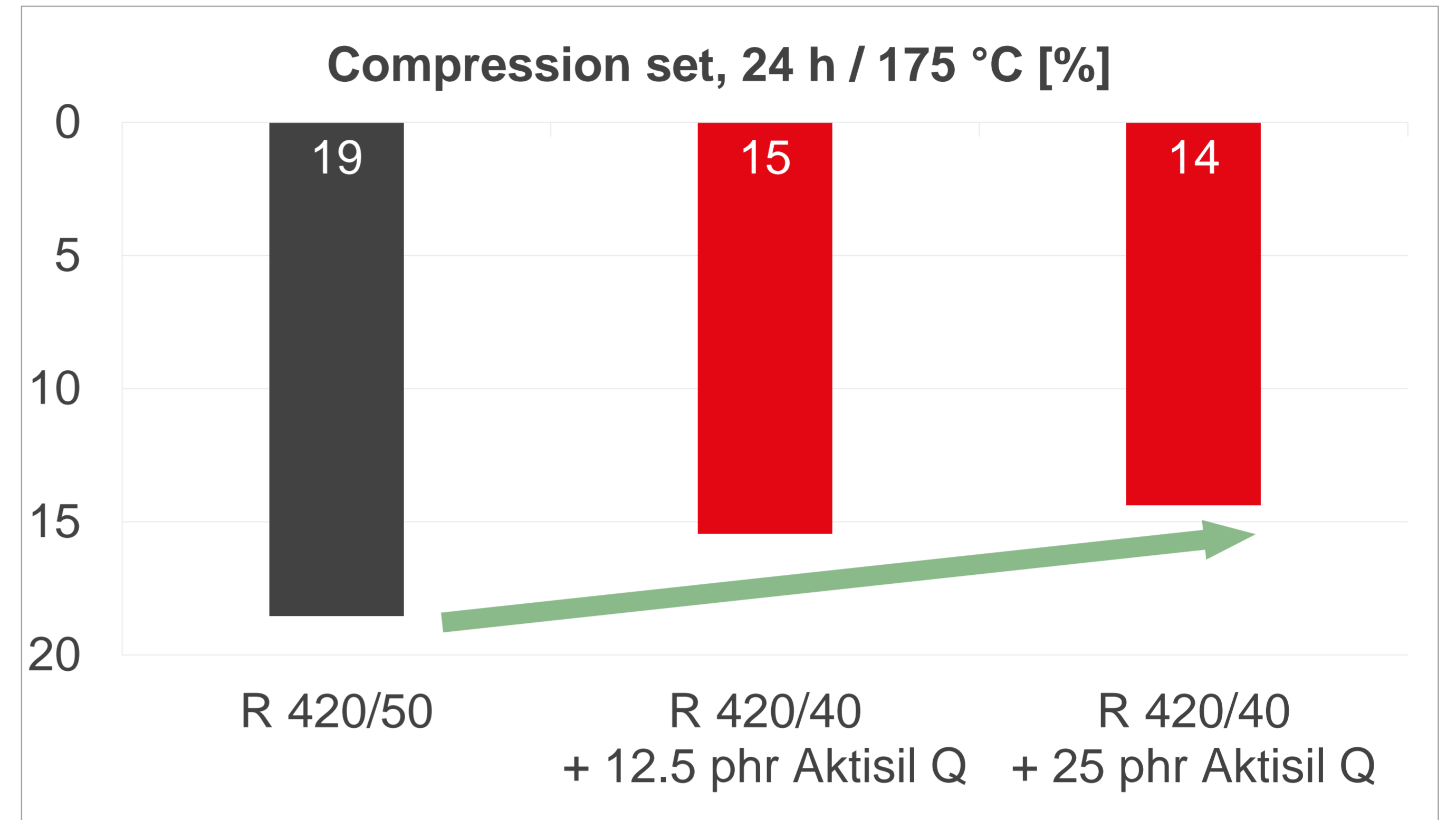


Results

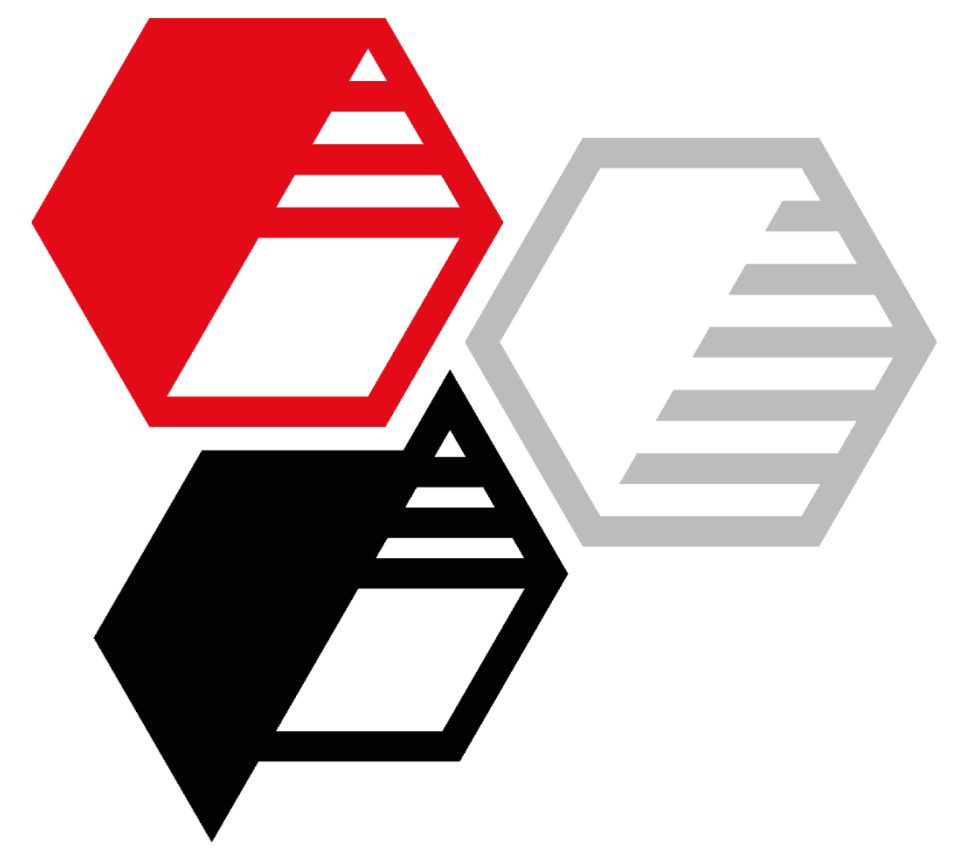
Curing Agent C6



Perkadox BC-40S-ps

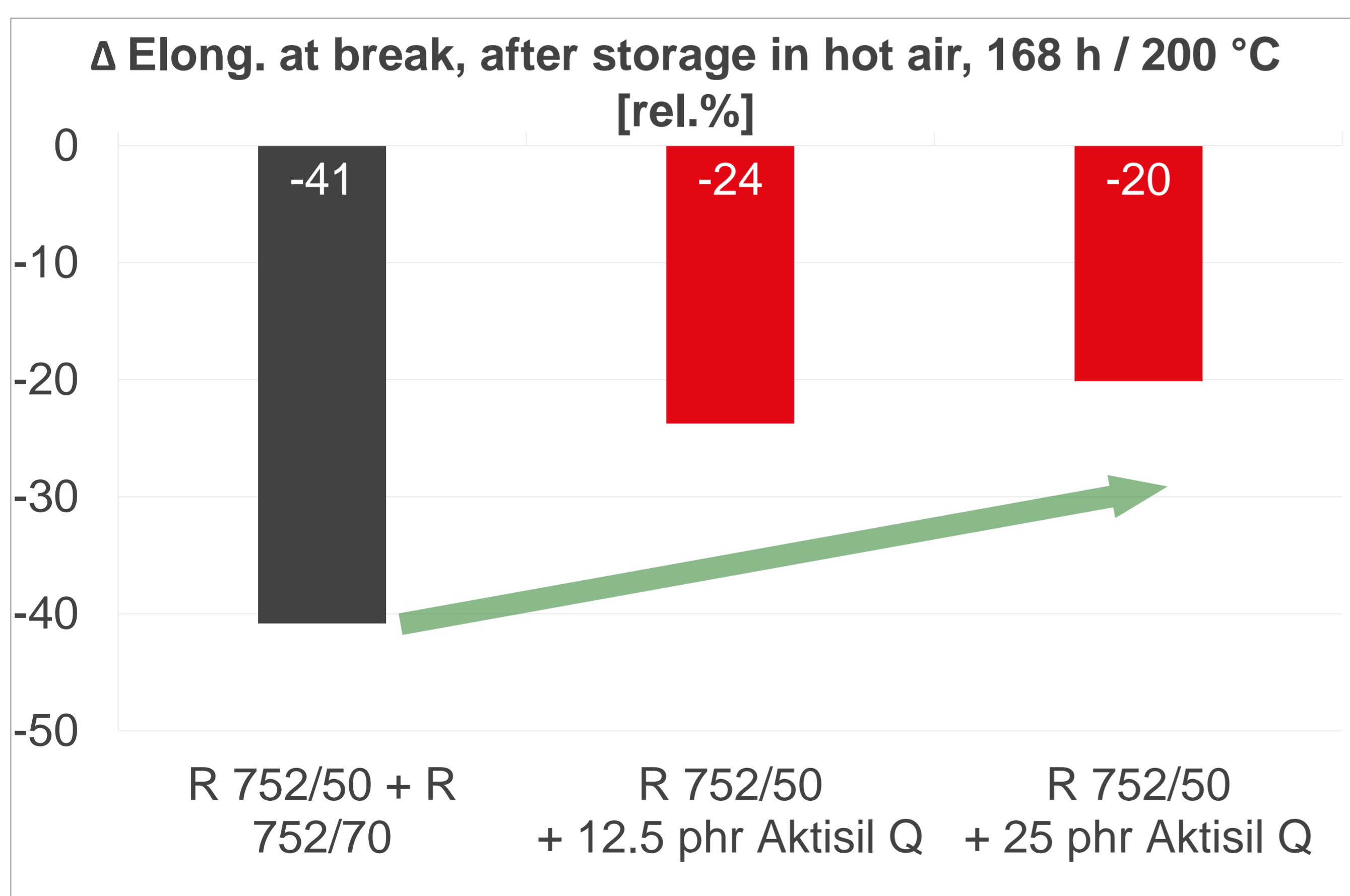
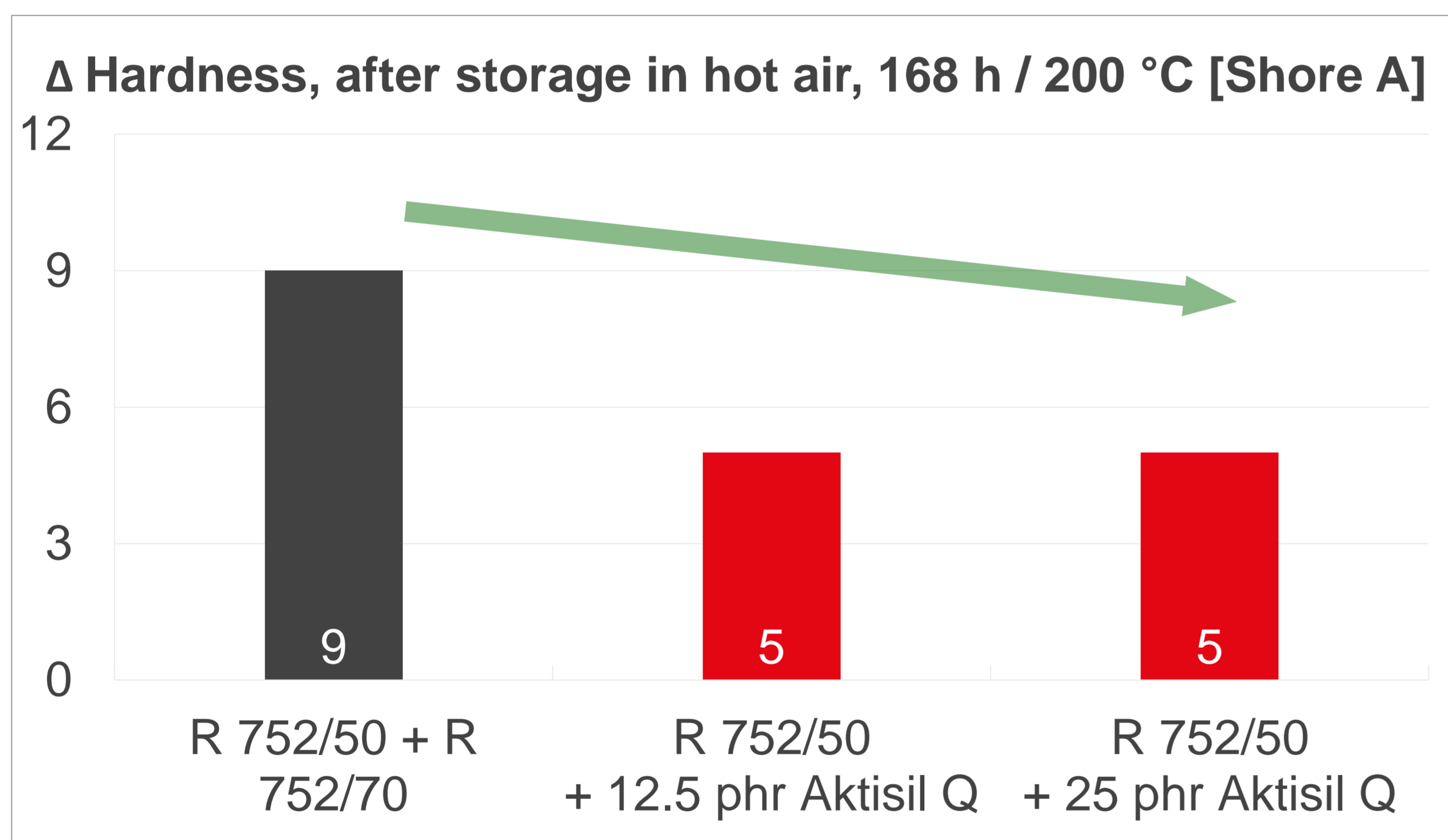
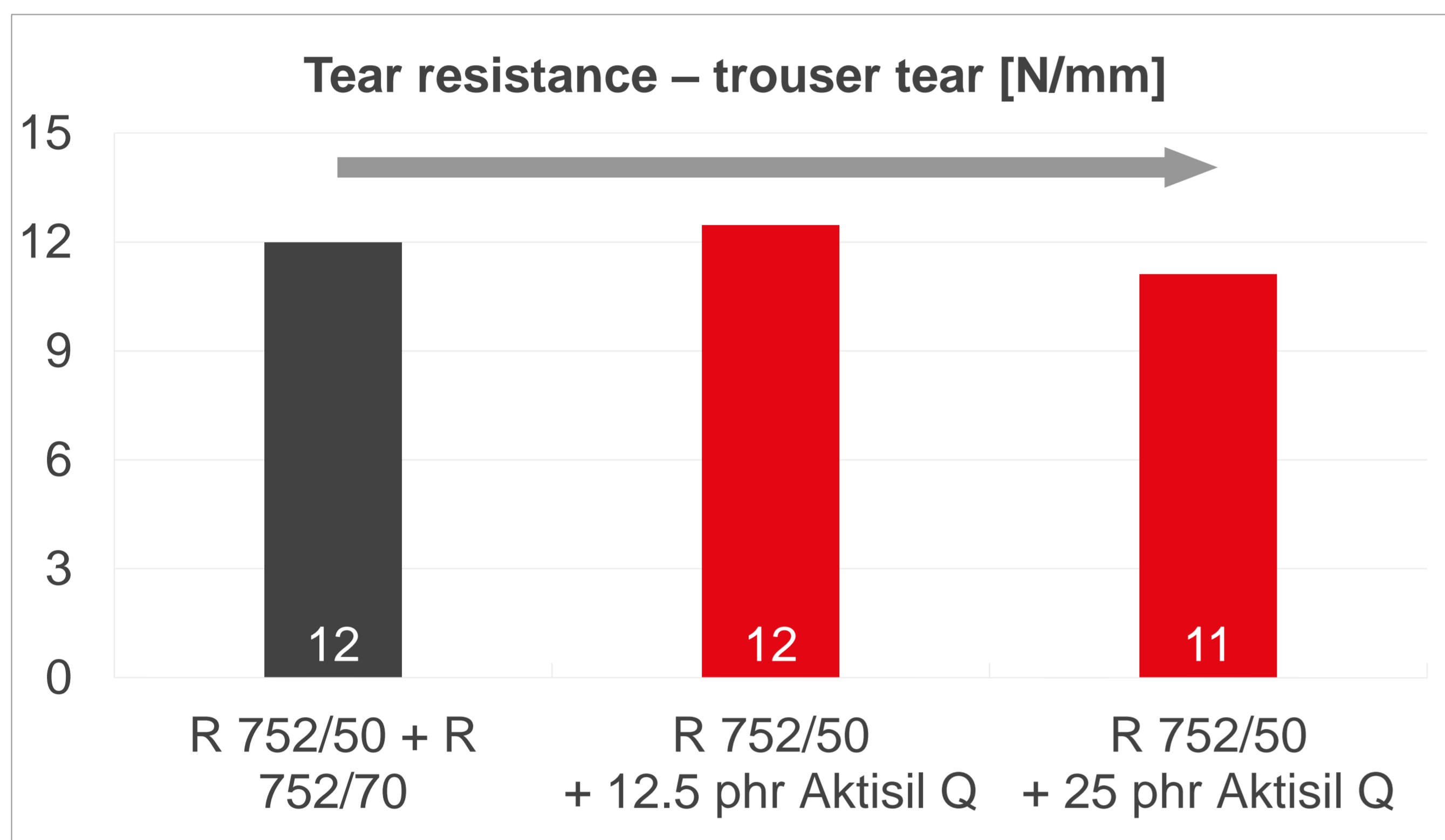
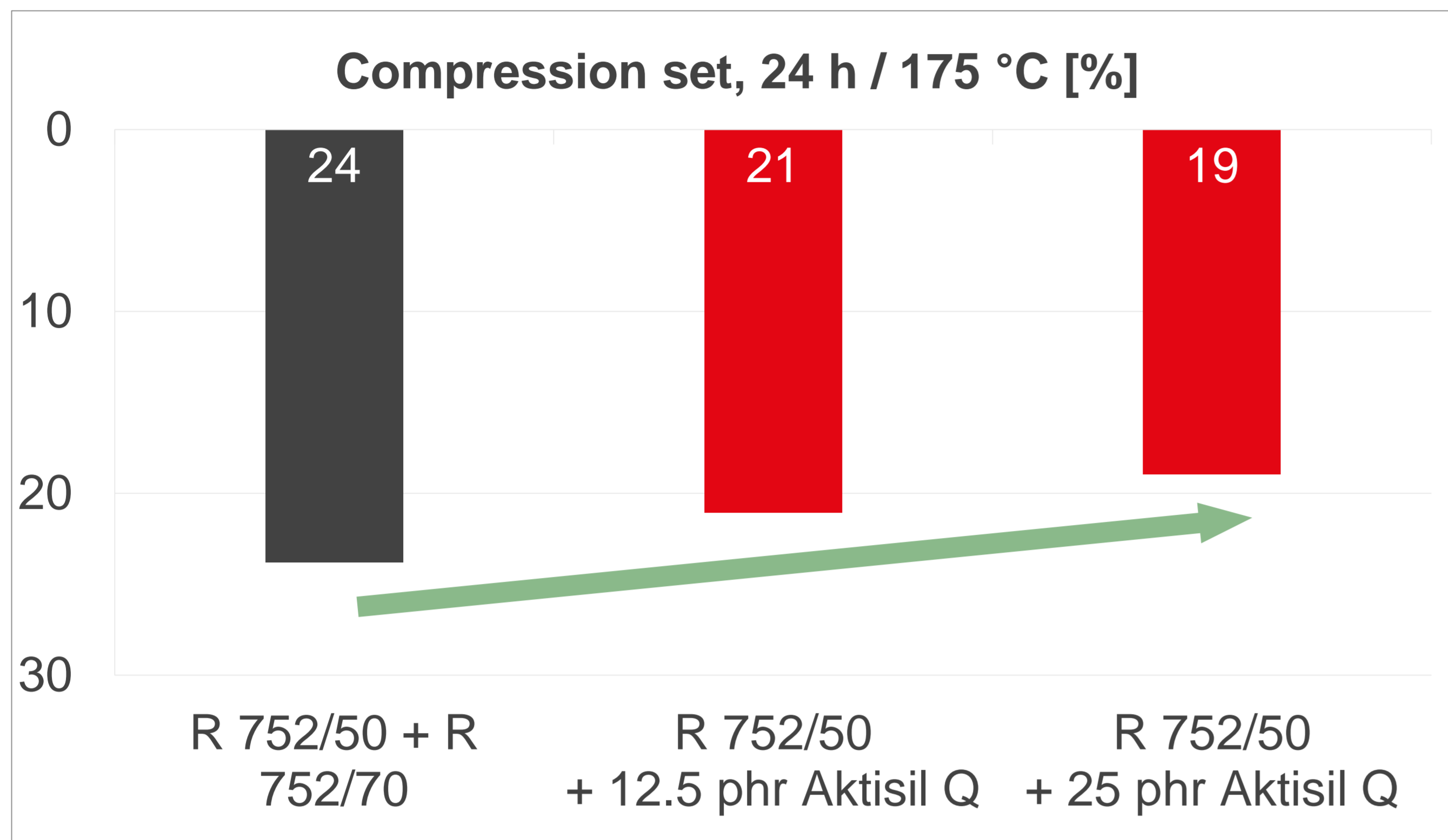


Peroxide cured silicone rubber – optimization of property combinations with Aktisil Q

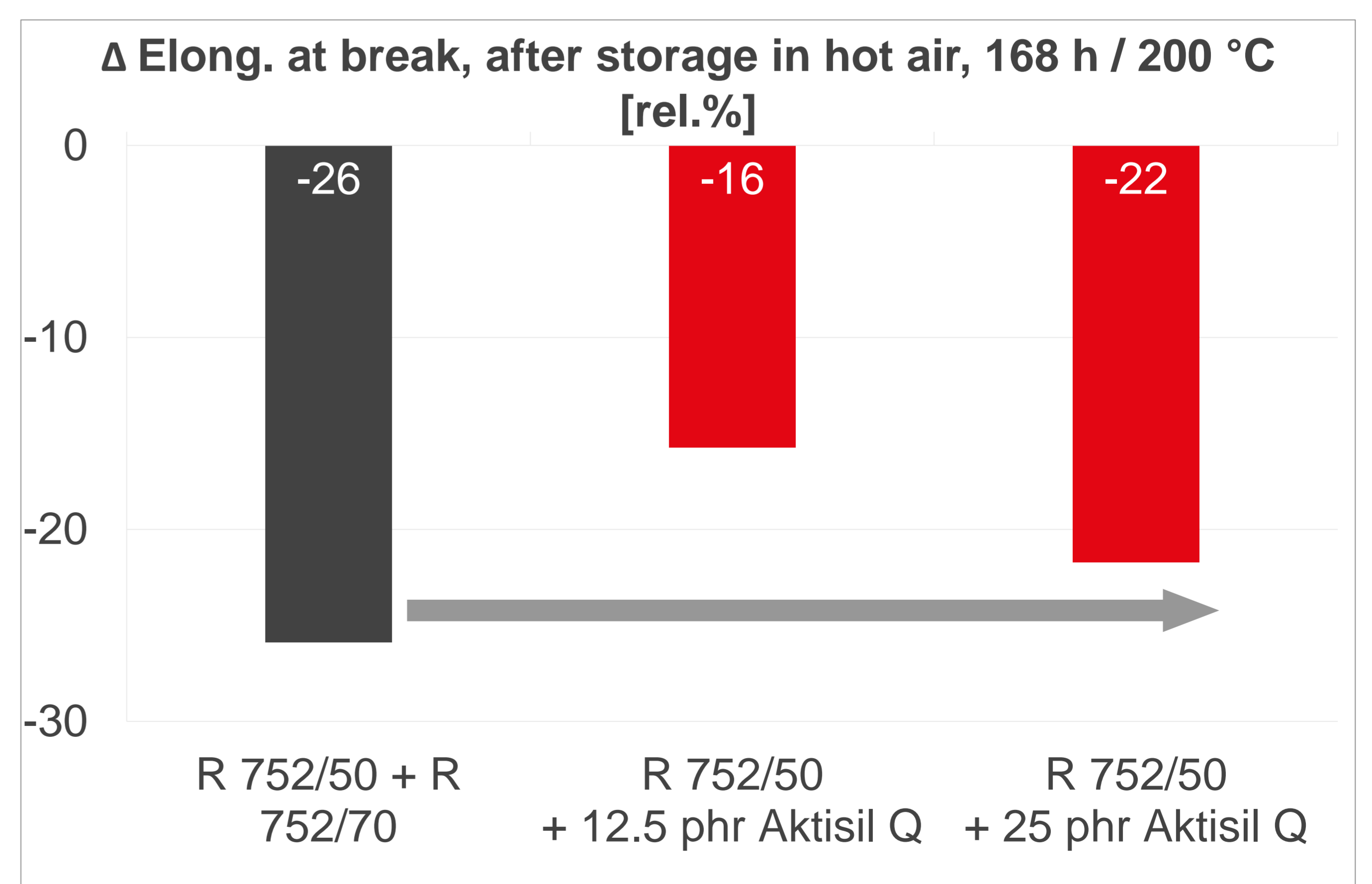
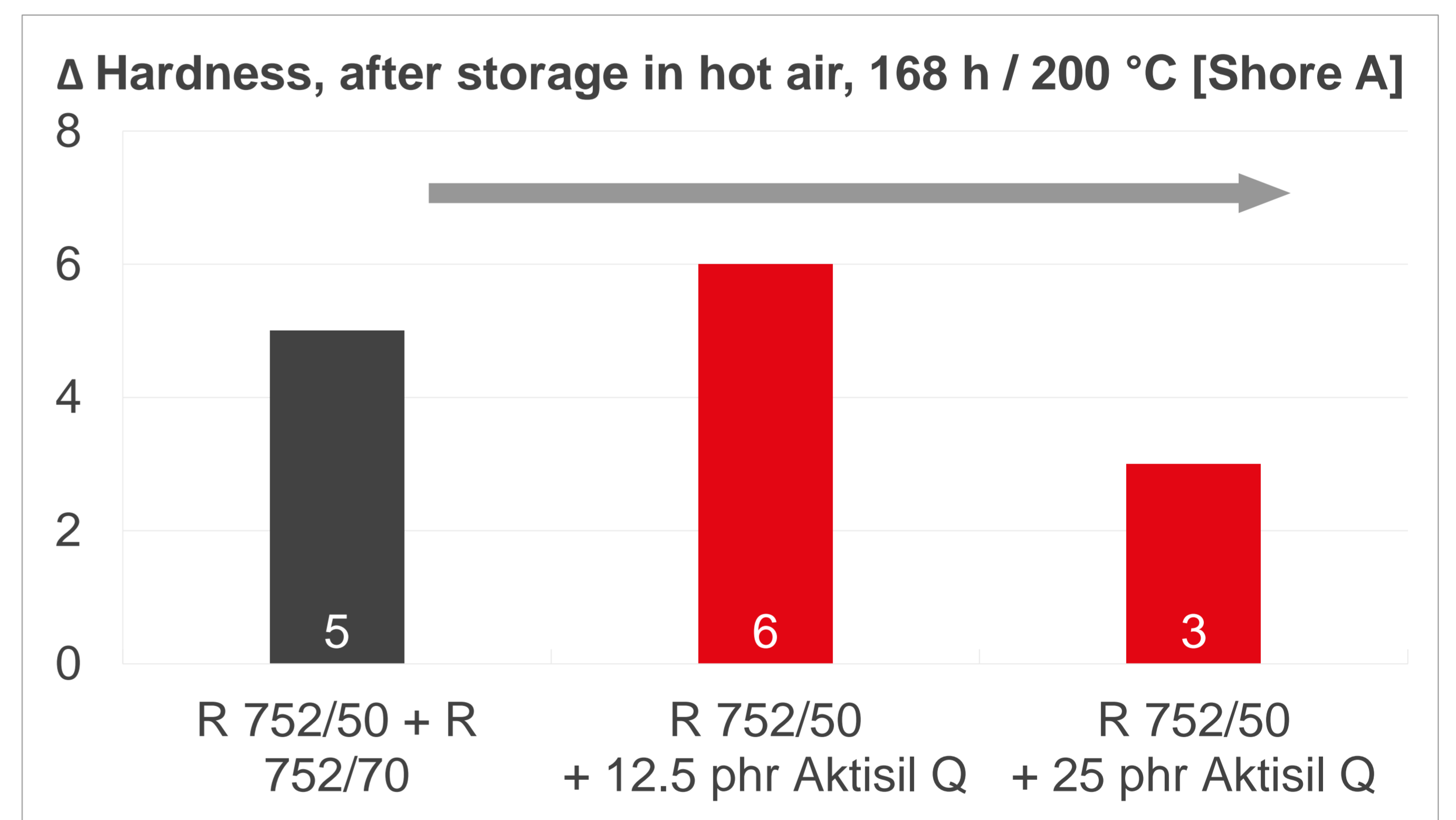
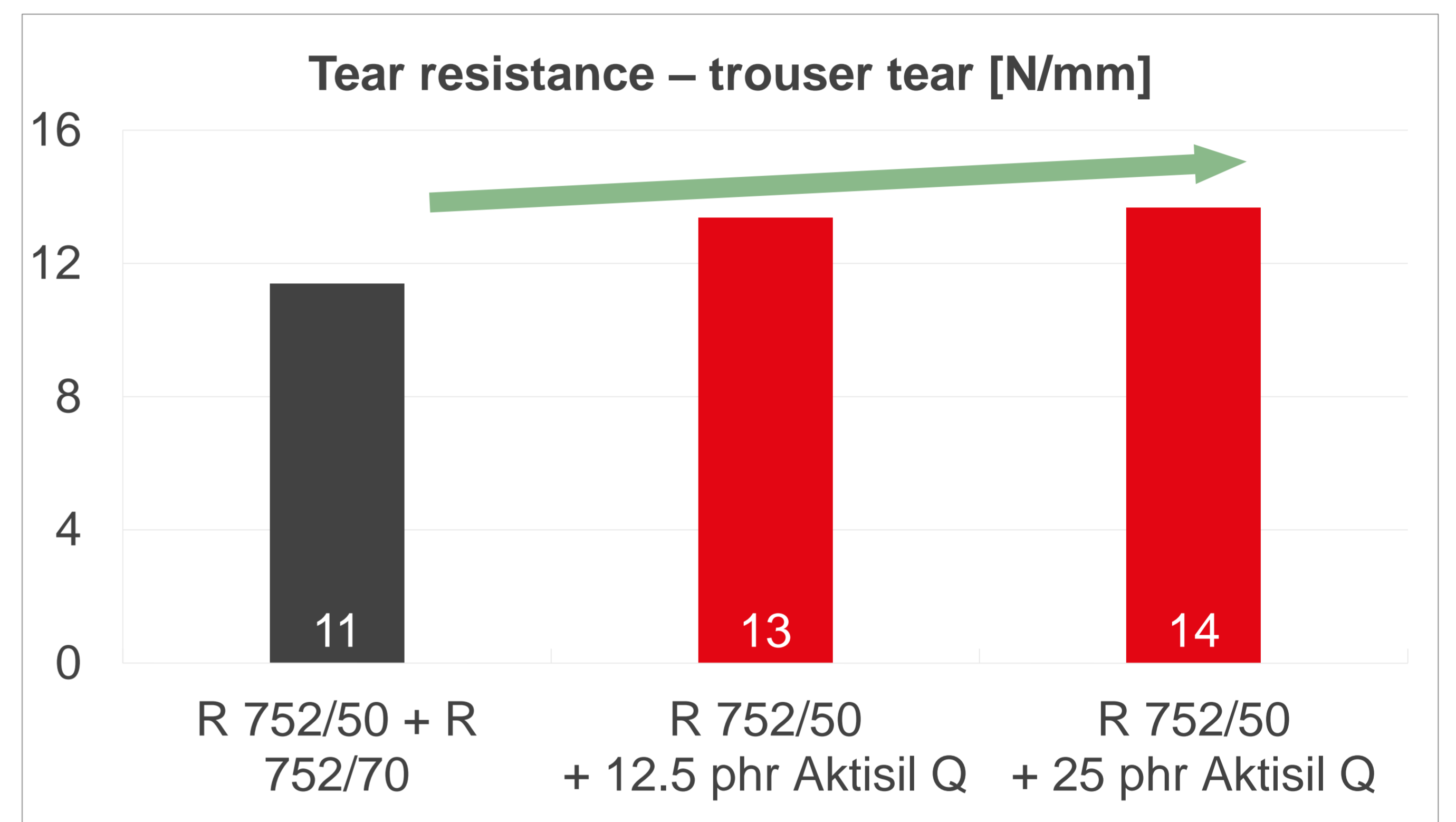
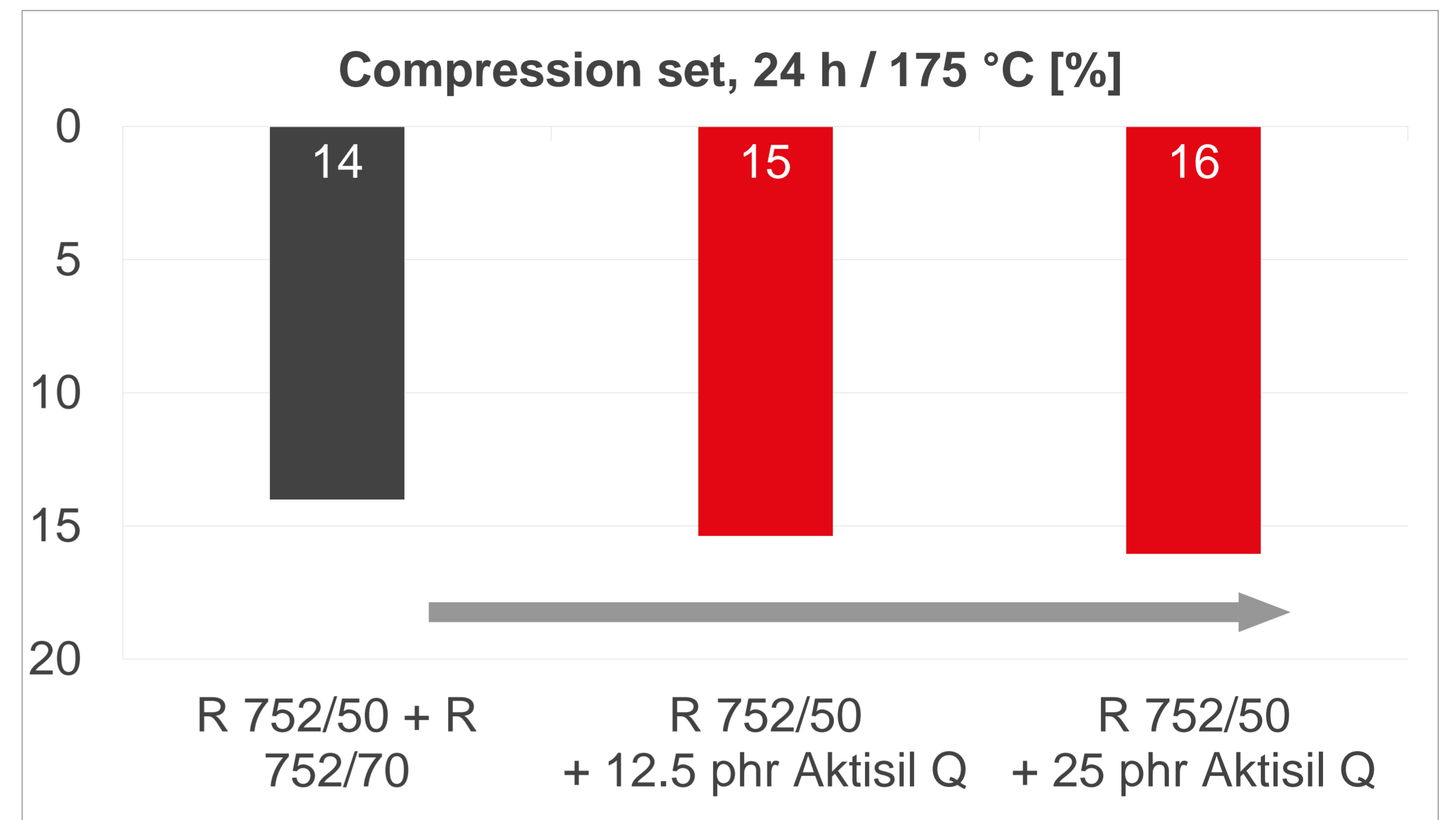


Results

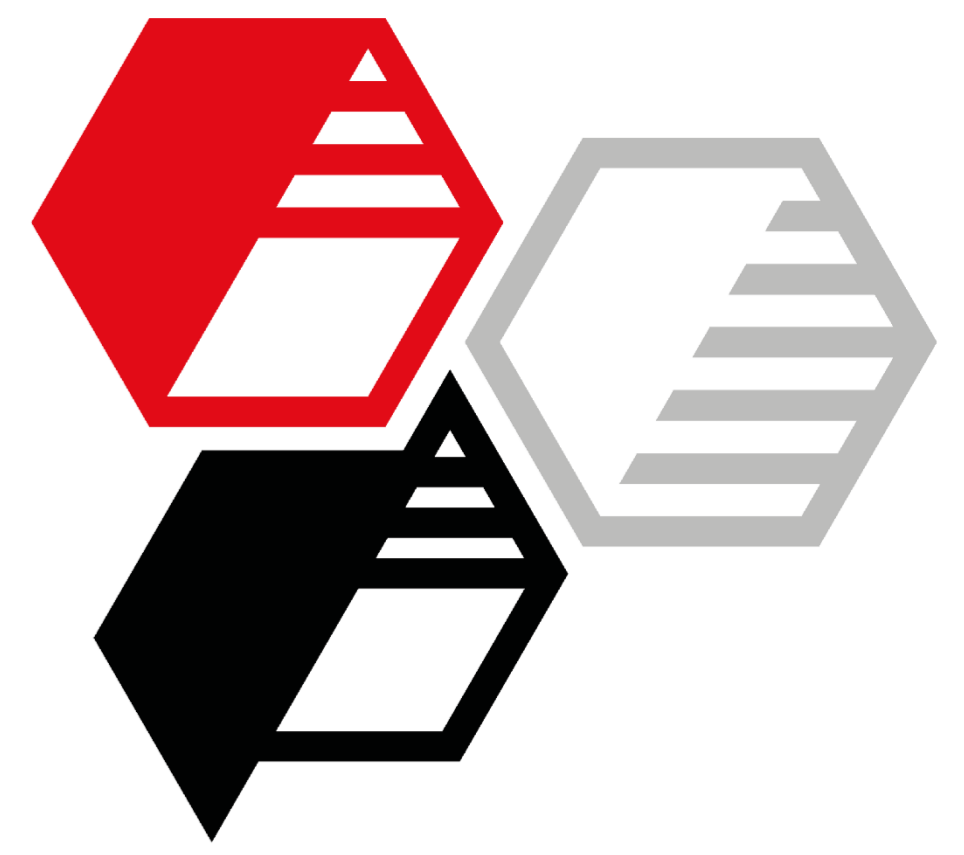
Curing Agent C6



Perkadox BC-40S-ps

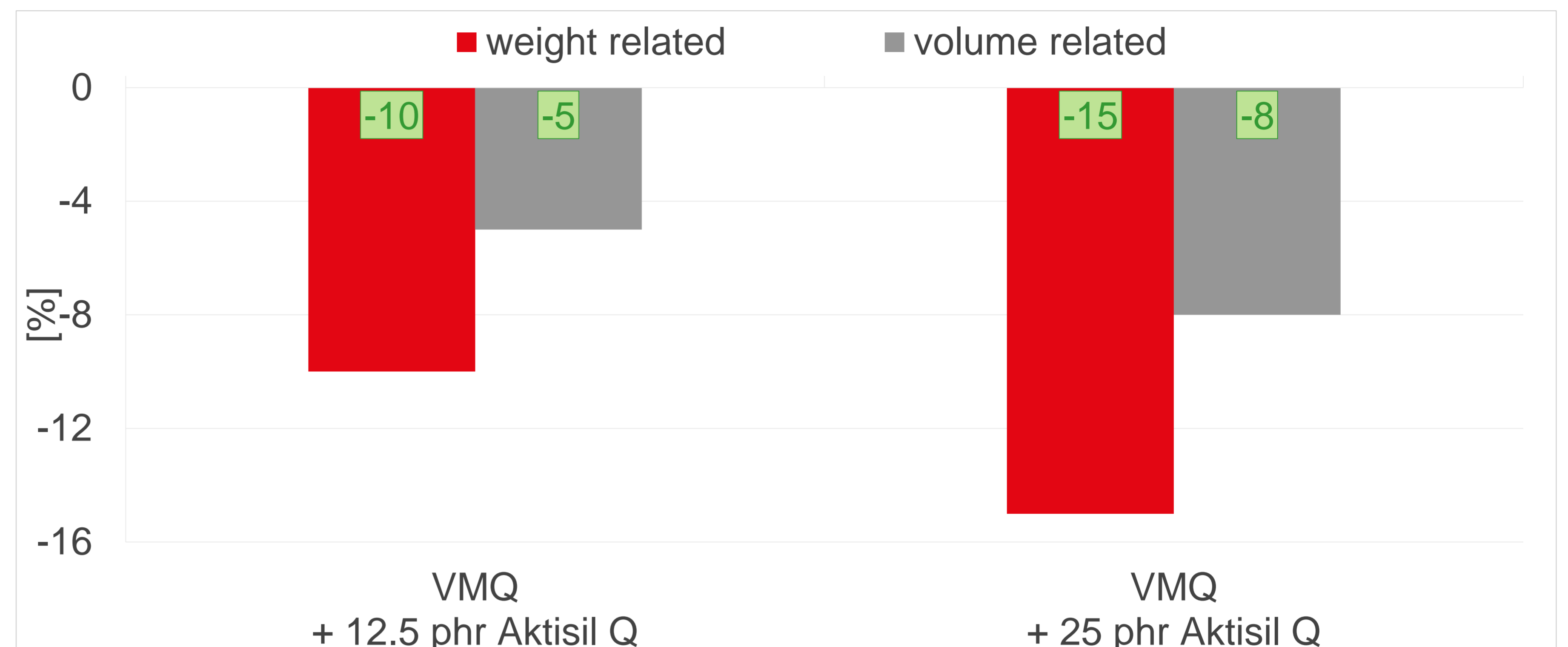
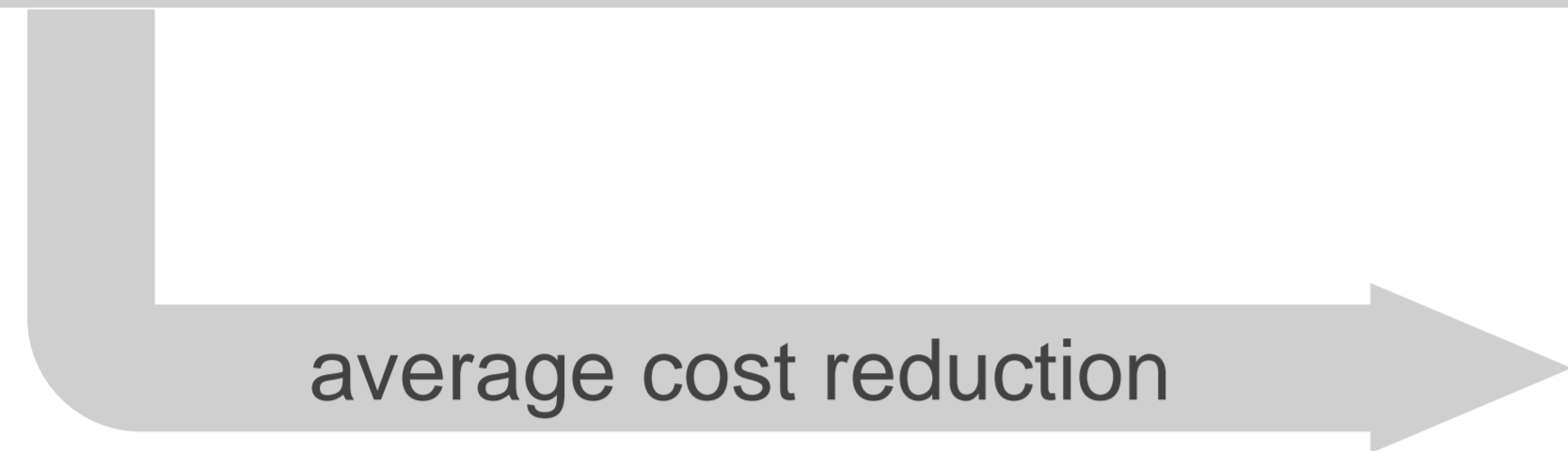


Peroxide cured silicone rubber – optimization of property combinations with Aktisil Q

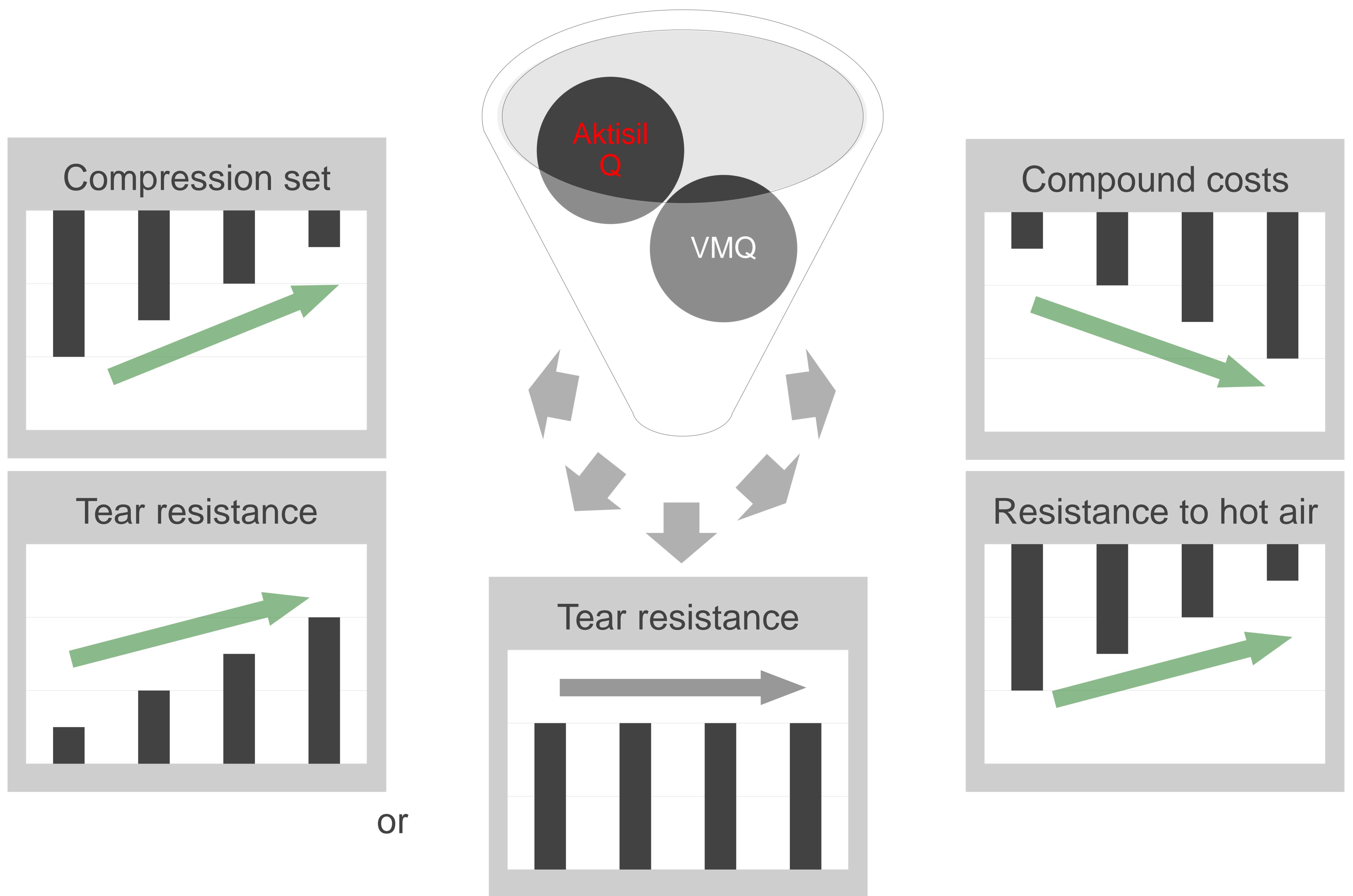


Compound cost reduction

Depending on the polymer type and peroxide, the compound costs can be markedly reduced by using **Aktisil Q**.



Summary



Addition of **Aktisil Q** to silicone rubber

✓ Improved processing

✓ Optimized mechanical properties

✓ Cost reduction