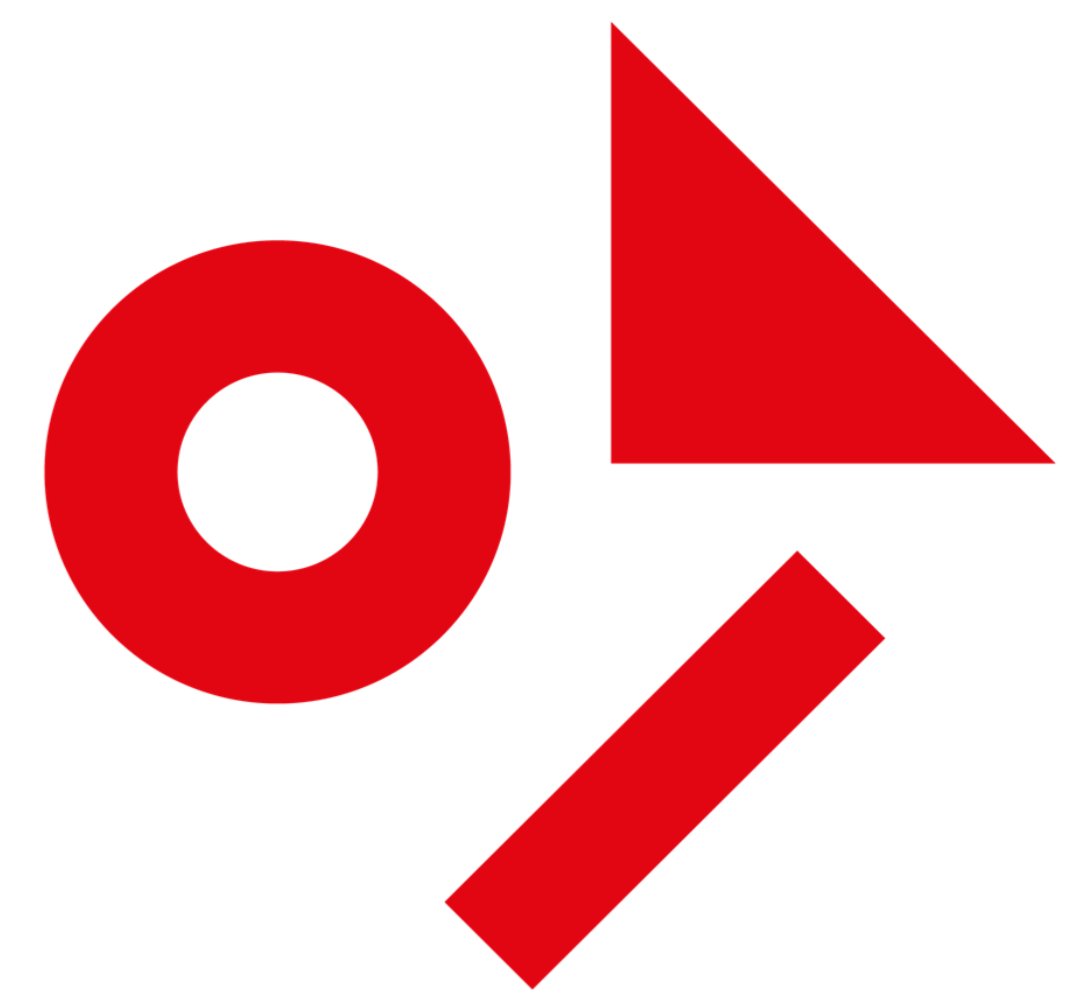


# Tailored Filler Solutions

## Struktosil 45 AM

### EPDM, sulfur cured



## Introduction



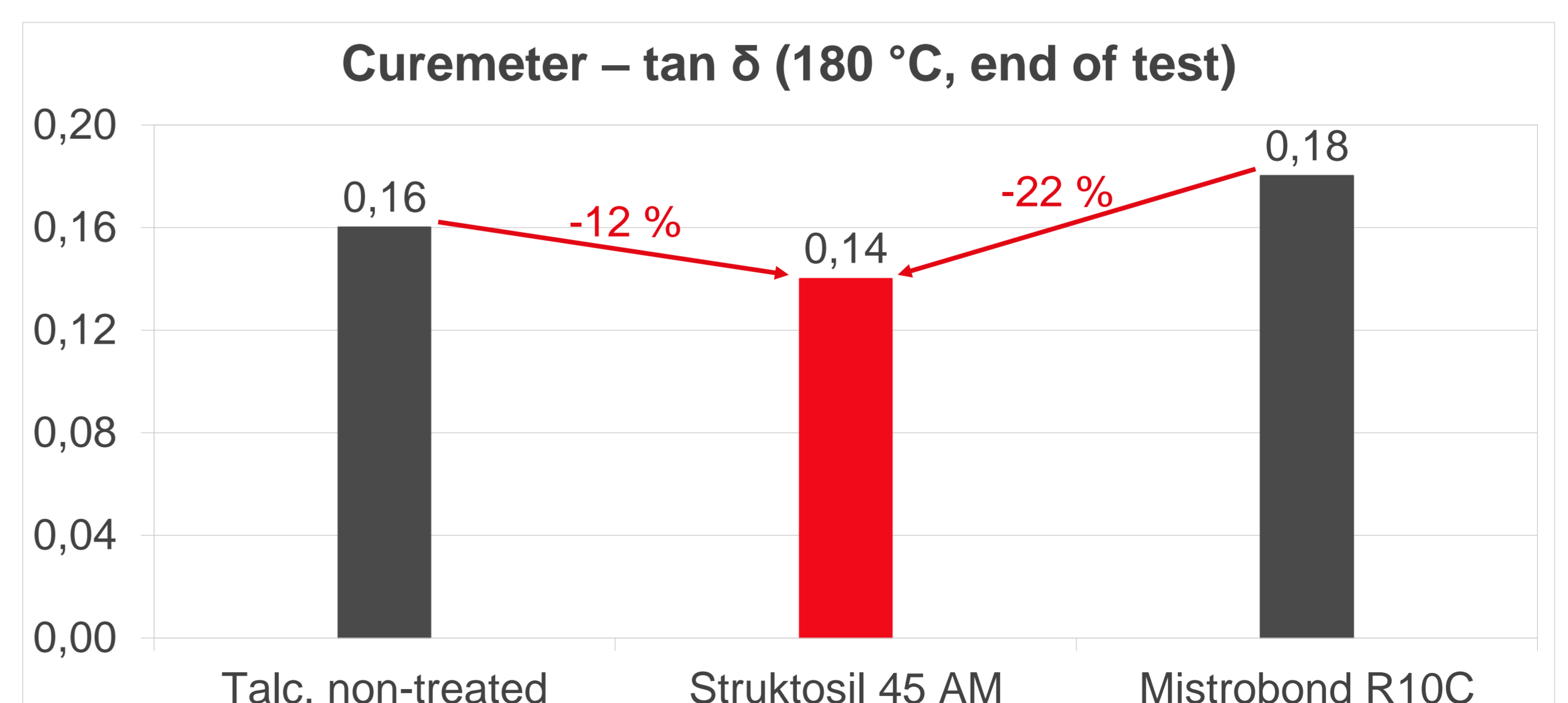
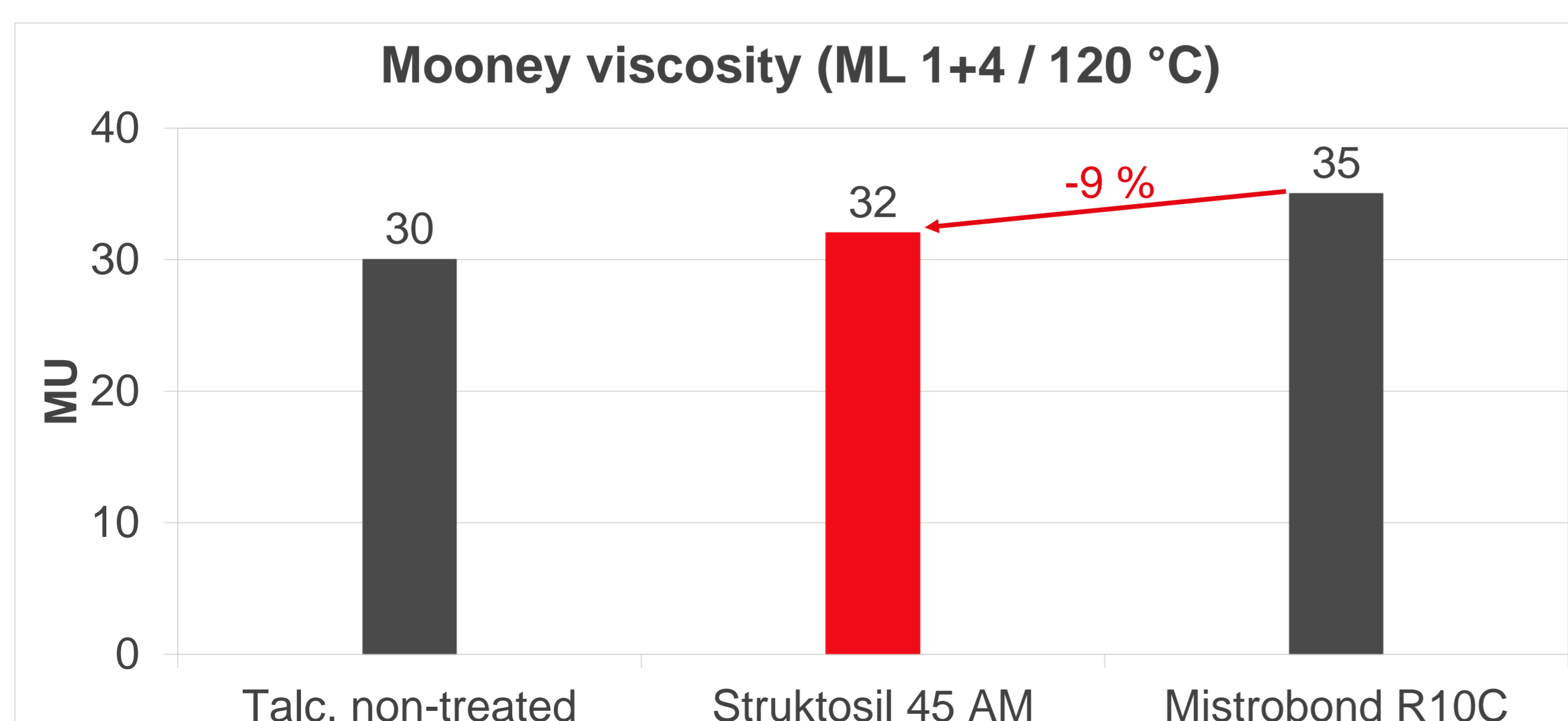
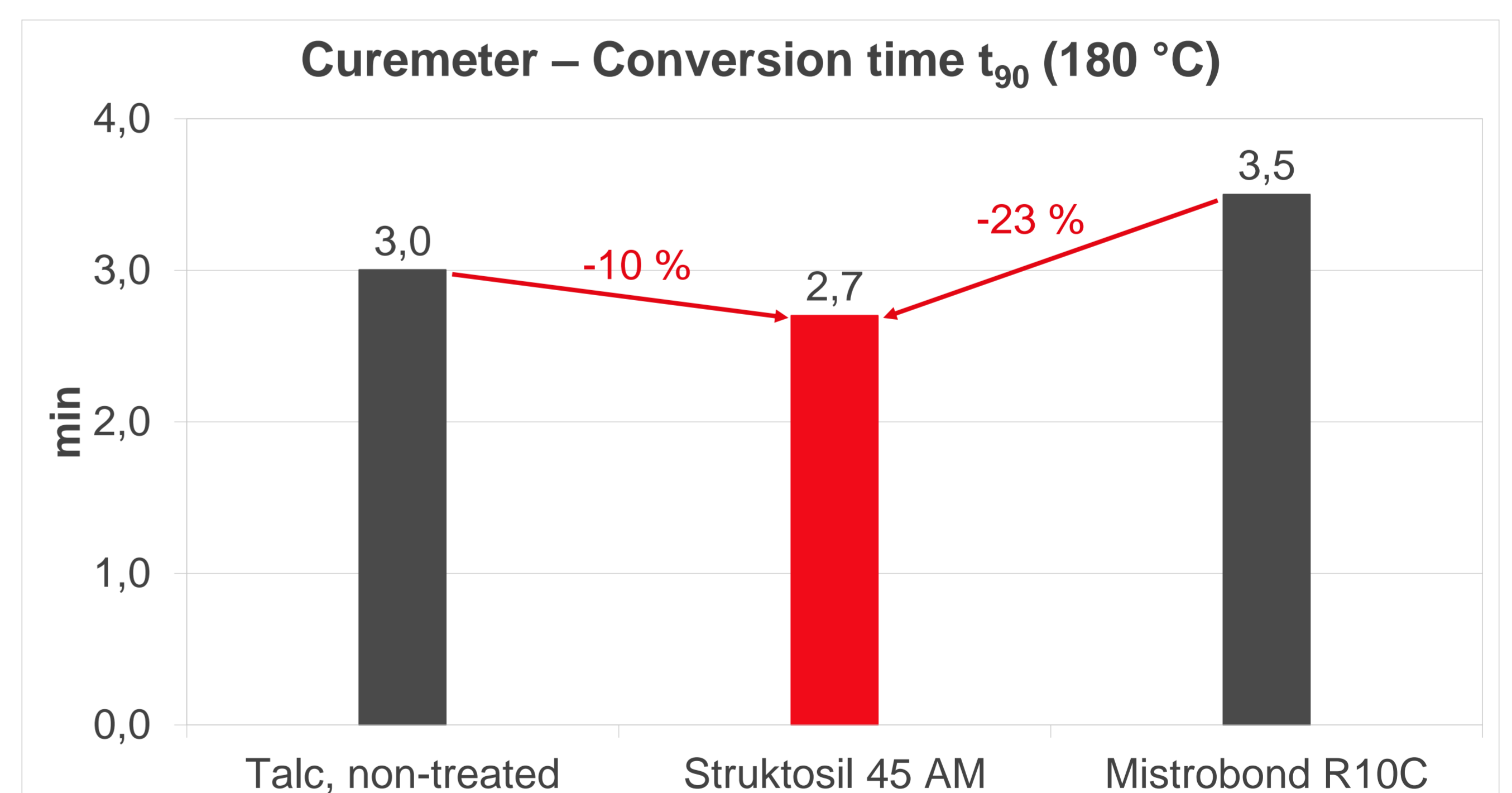
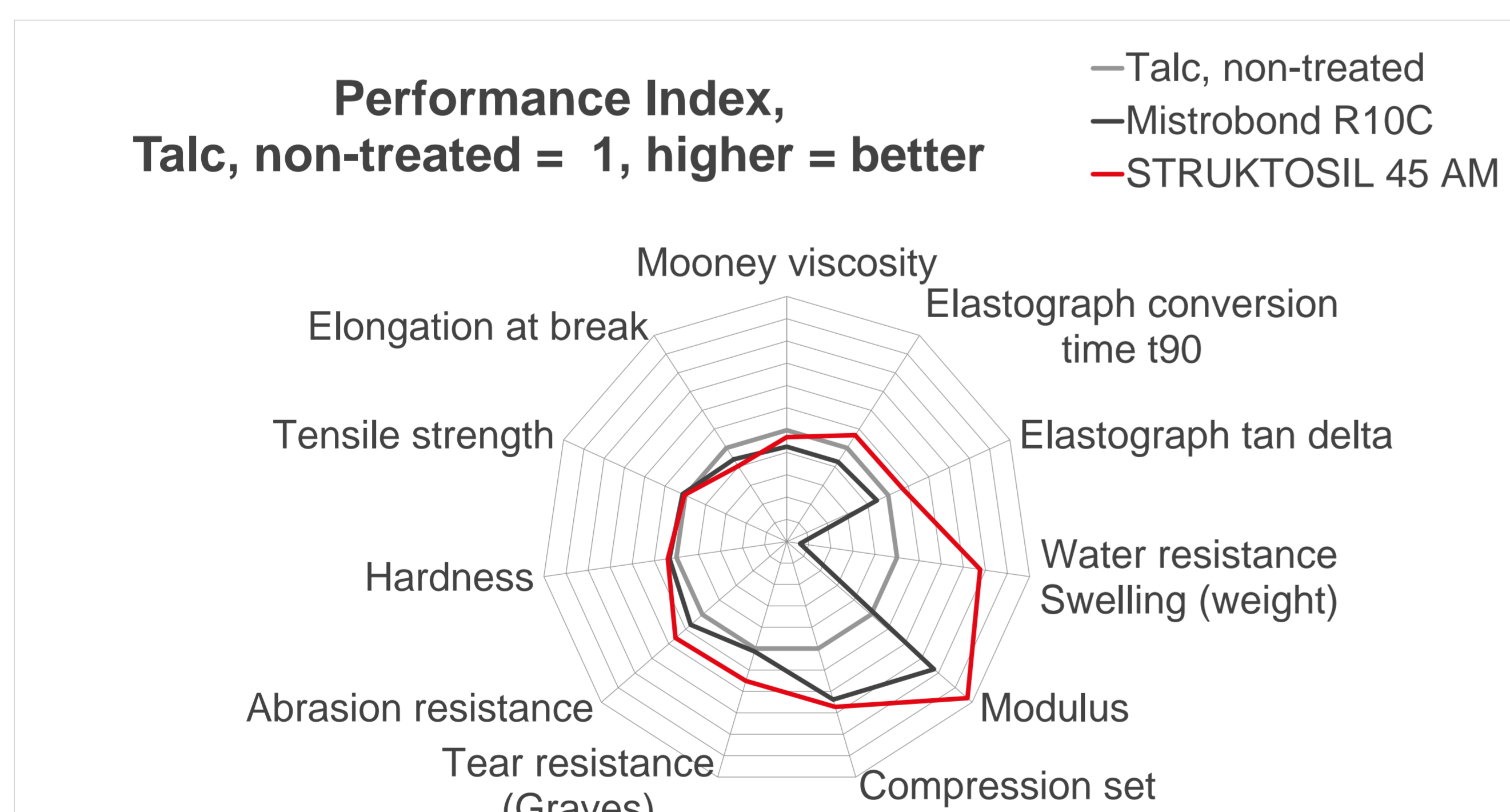
We think in extremes. And in extremely small minerals.

We will use our know-how of Neuburg Siliceous Earth and transfer it to new base materials, combined with innovative modifications for further improvement.

## Formulation

Material	Description	phr	
Keltan 2650	Ethylene propylene diene rubber, amorphous, ML 1+4 (125 °C): 25 MU	100	
Zinkoxyd aktiv	Zinc oxide	3	
Edenor C18 98-100 GW	Stearic acid	0.5	
Talc, non-treated	Talc, non-treated	120	
<b>Struktosil 45 AM</b>	Talc, surface treated	120	
Mistrobond R10C	Talc, surface treated		120
Process Oil P460	Paraffinic mineral oil, plasticizer	5	
PEG 4000	Polyethylene glycol	1	
Rhenogran CBS-80	N-cyclohexylbenzothiazole-2-sulfenamide, 80 %, accelerator	0.5	
Rhenogran ZBEC-70	Zinc-dibenzyl-dithiocarbamate, 70 %, accelerator	2	
Rhenogran TP-50	Zinc-dithiophosphate, 50 %, accelerator	2	
Rhenogran CLD-80	Caprolactam disulfide, 80 %, sulfur donor	1	
Rhenogran S-80	Sulfur, 80 %, crosslinking agent	0.75	
Rhenogran MBTS-80	2-Mercaptobenzothiazole disulfide, 80 %, accelerator	1.3	
<b>Total</b>		<b>237.05</b>	

## Results



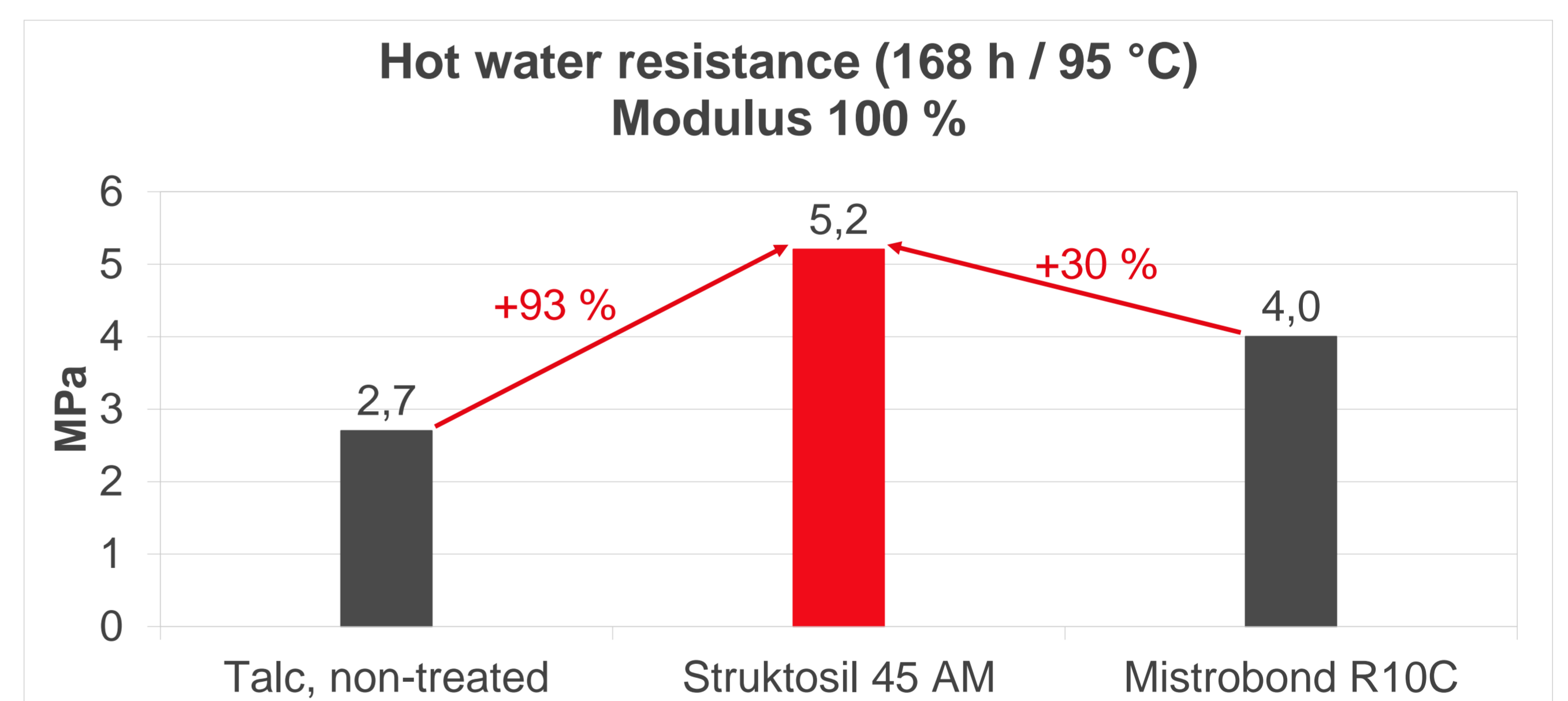
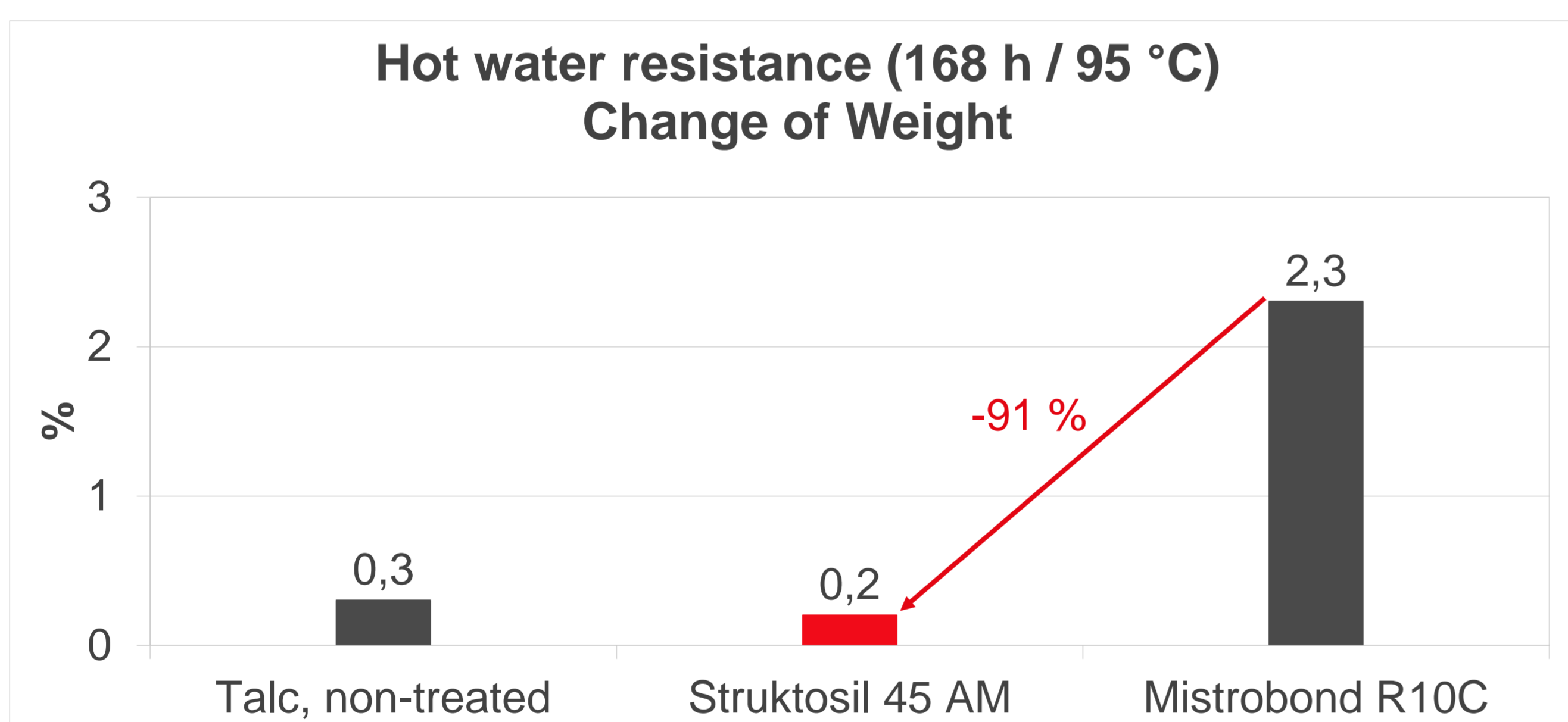
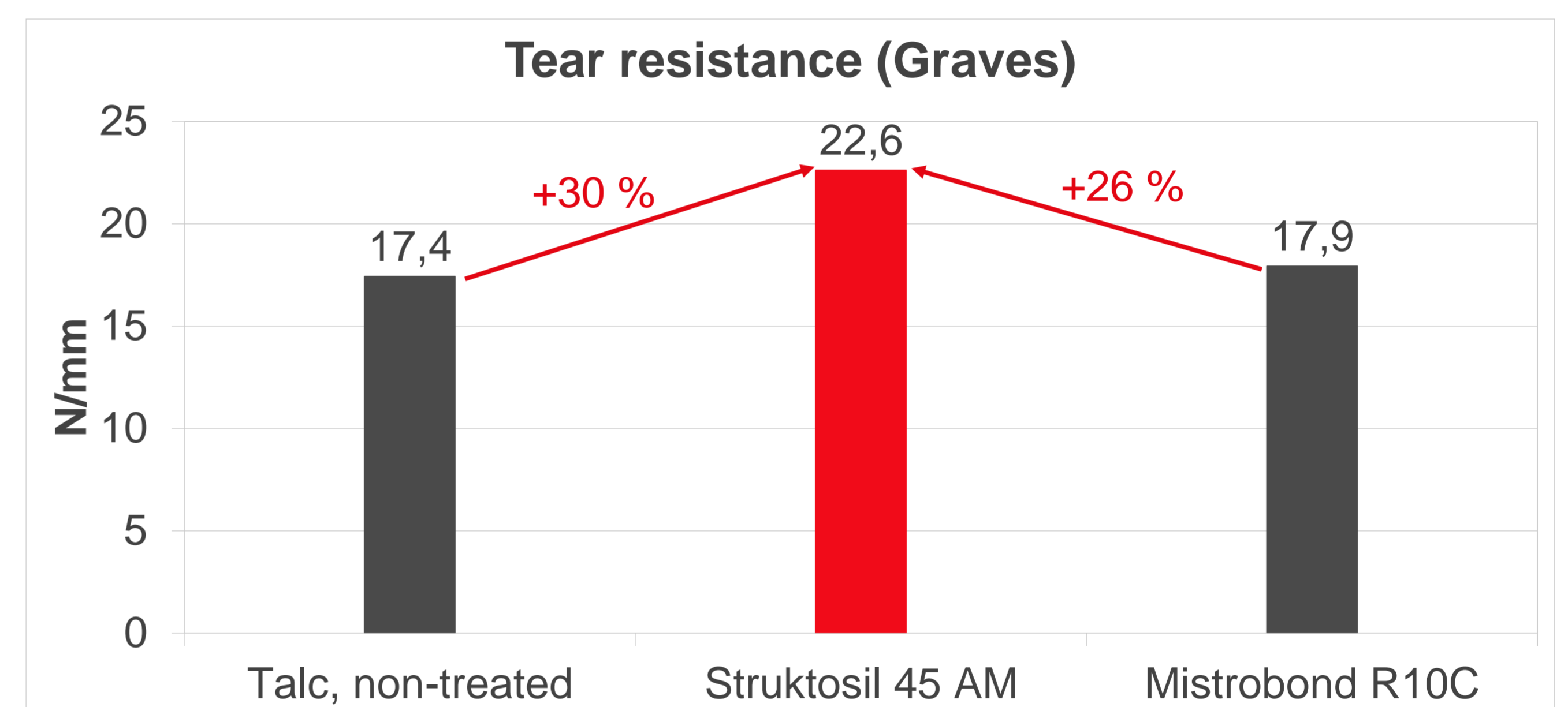
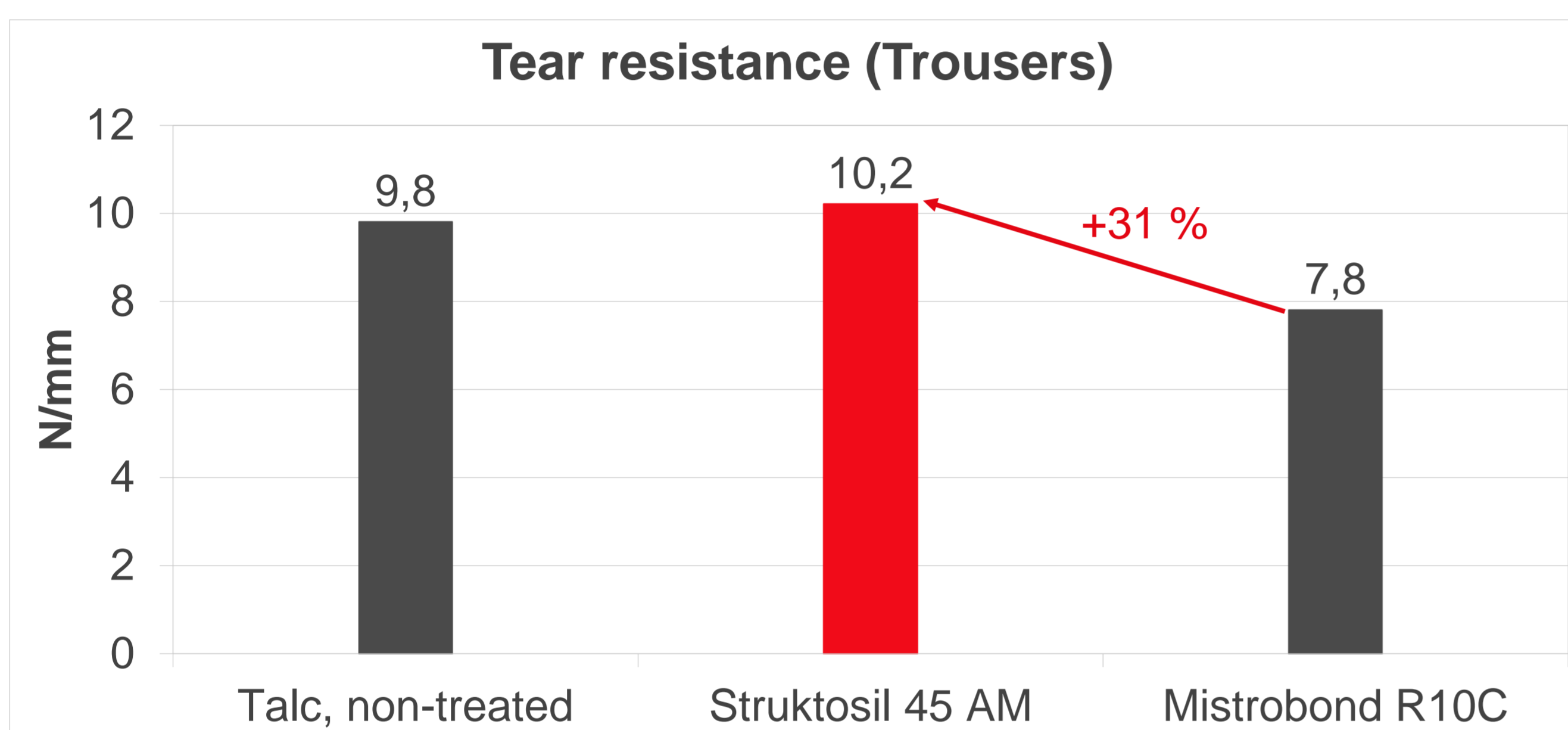
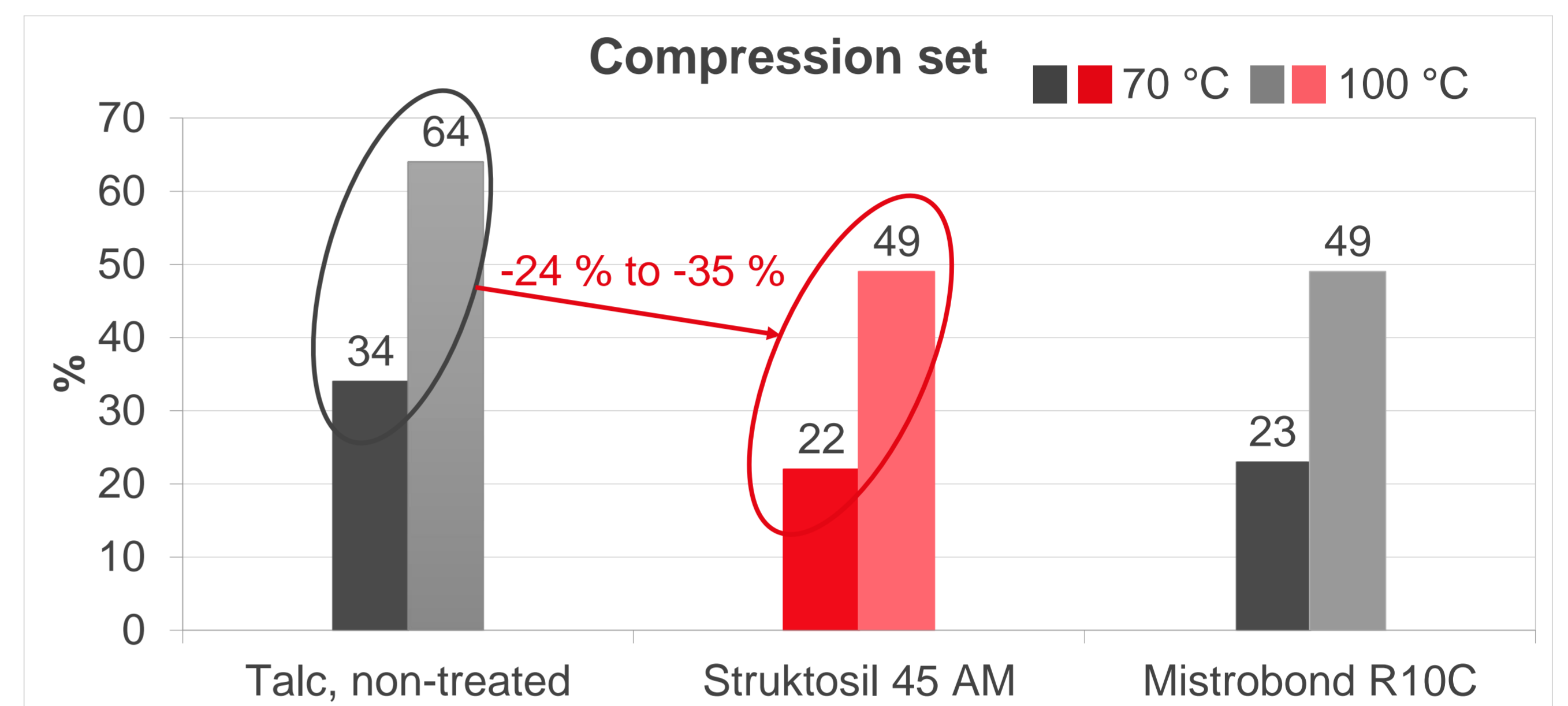
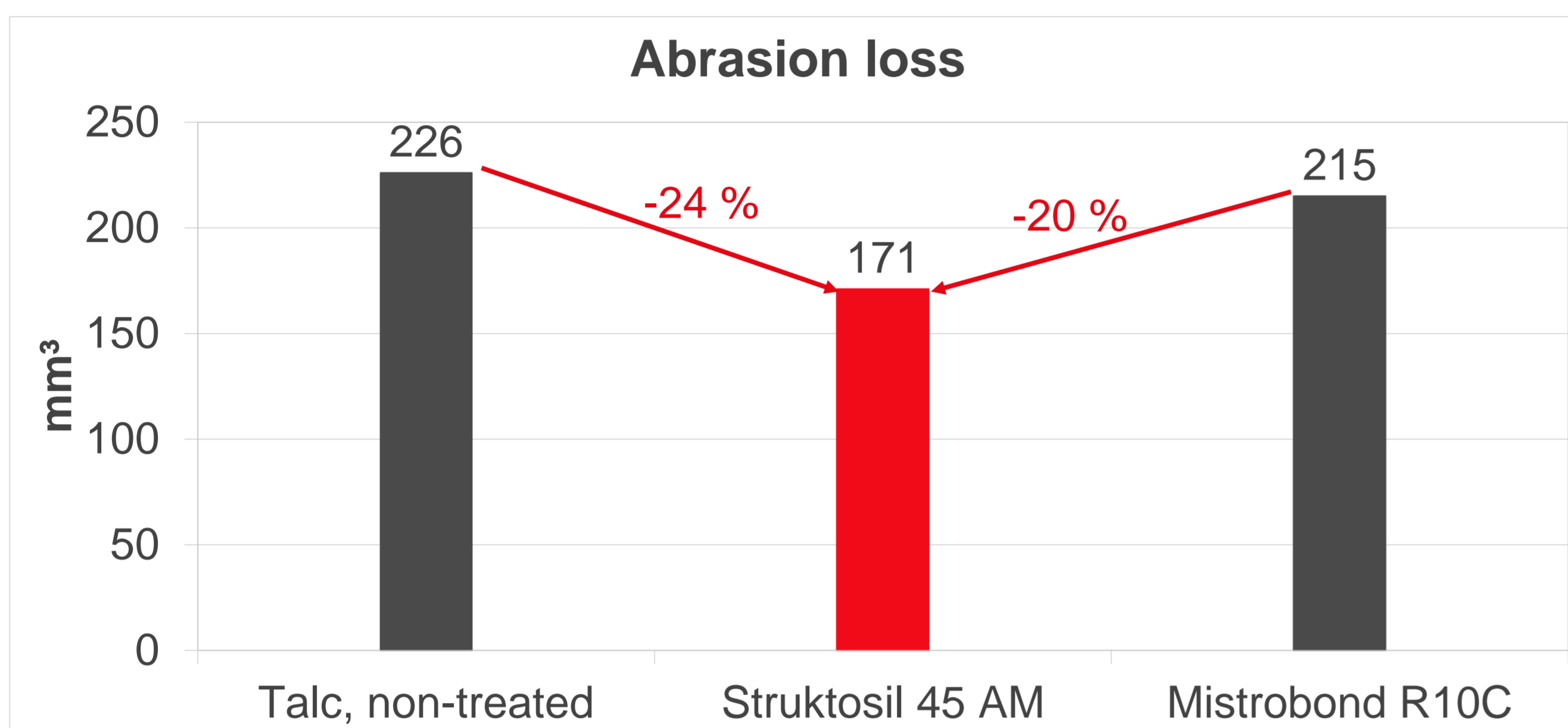
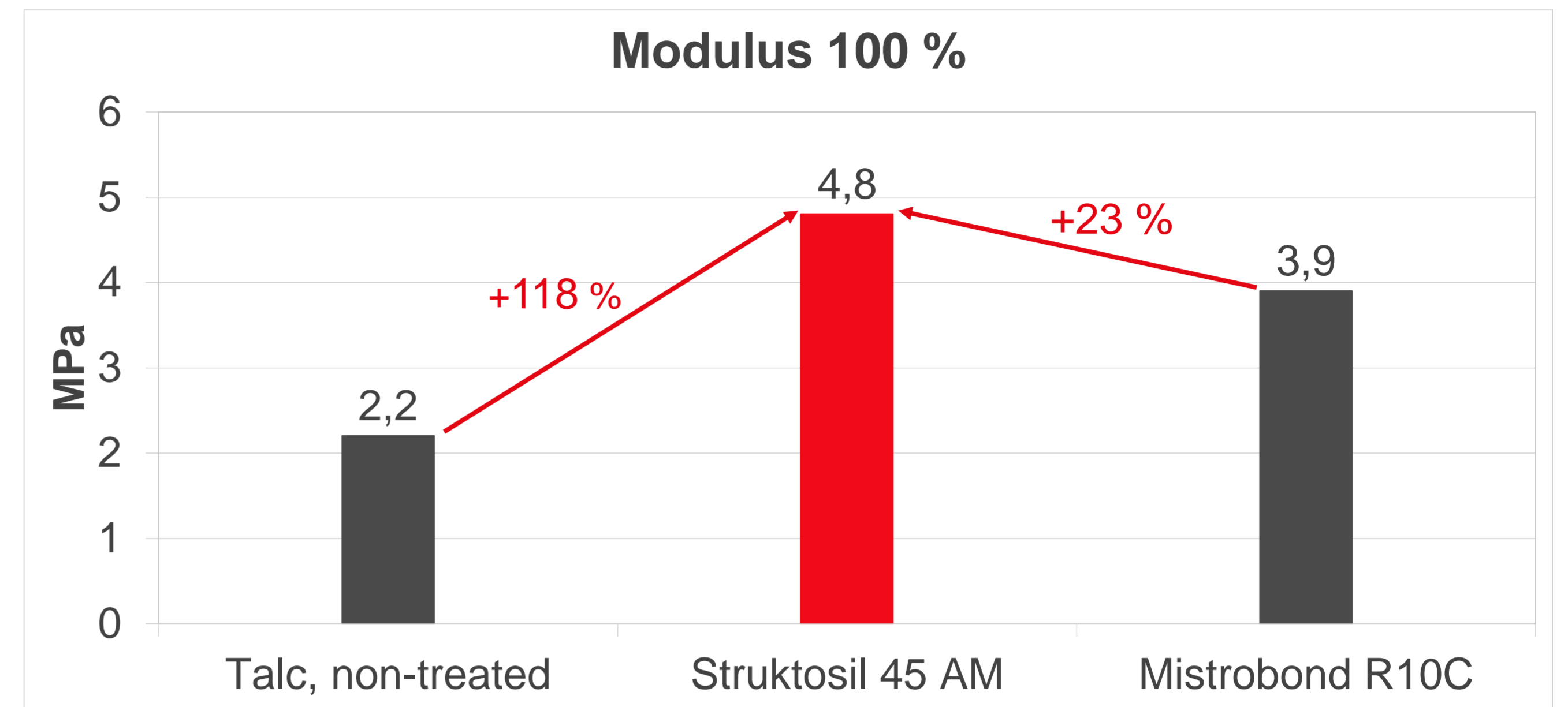
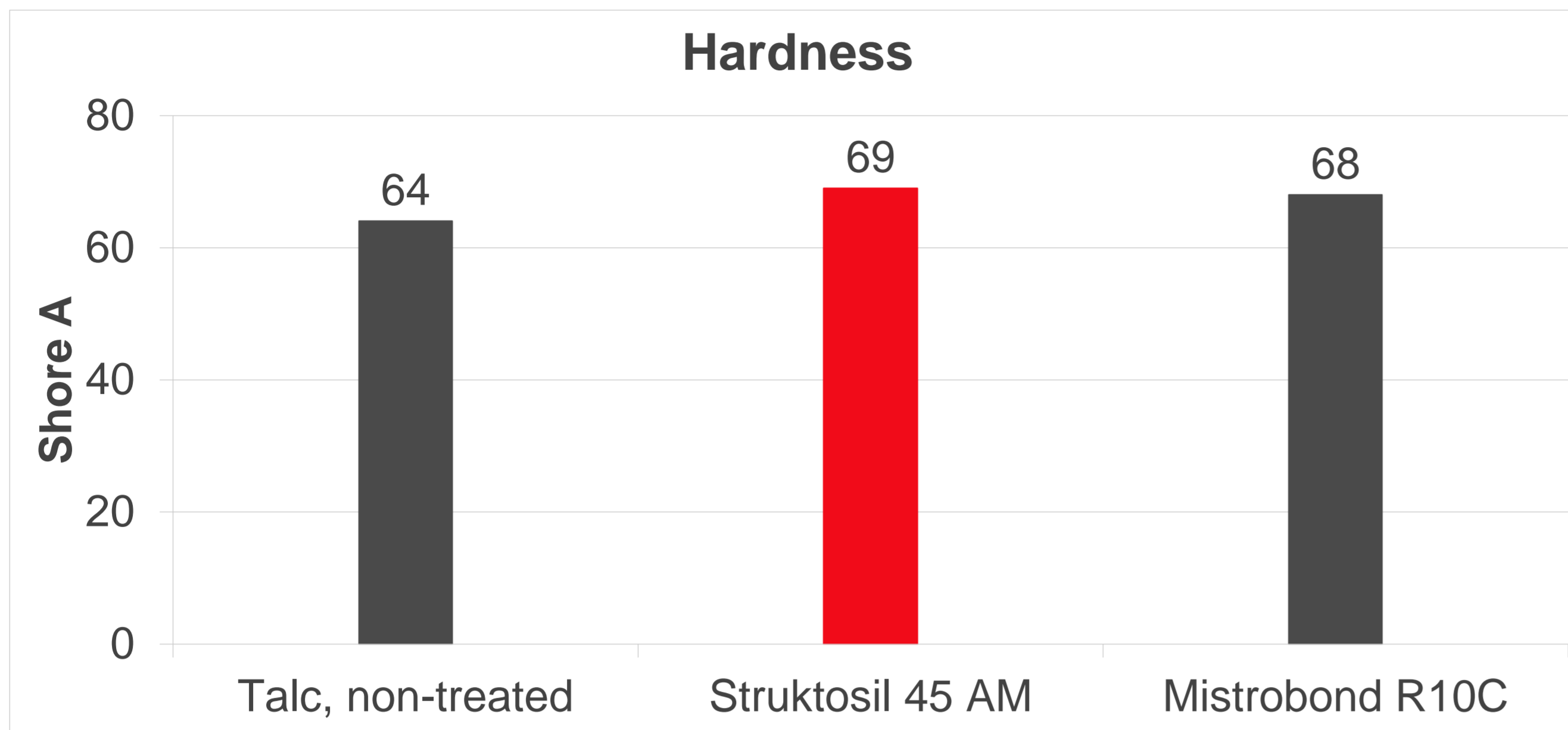
# Tailored Filler Solutions

## Struktosil 45 AM

### EPDM, sulfur cured



## Results



## Summary

Advantages of **Struktosil 45 AM** compared to Mistrobond R10:

- ▶ Lower Mooney viscosity
- ▶ Lower tangent delta at the end of vulcanization
- ▶ Shorter conversion time  $t_{90}$
- ▶ Increased moduli
- ▶ Increased tear resistance
- ▶ Improved abrasion resistance
- ▶ Significantly lower absorption of water during storage in hot water

Advantages of **Struktosil 45 AM** compared to a non-treated talc:

- ▶ Lower tangent delta at the end of vulcanization
- ▶ Shorter conversion time  $t_{90}$
- ▶ Highly increased moduli
- ▶ Increased tear resistance
- ▶ Better abrasion resistance
- ▶ Highly decreased compression set
- ▶ Lower absorption of water during storage in hot water