

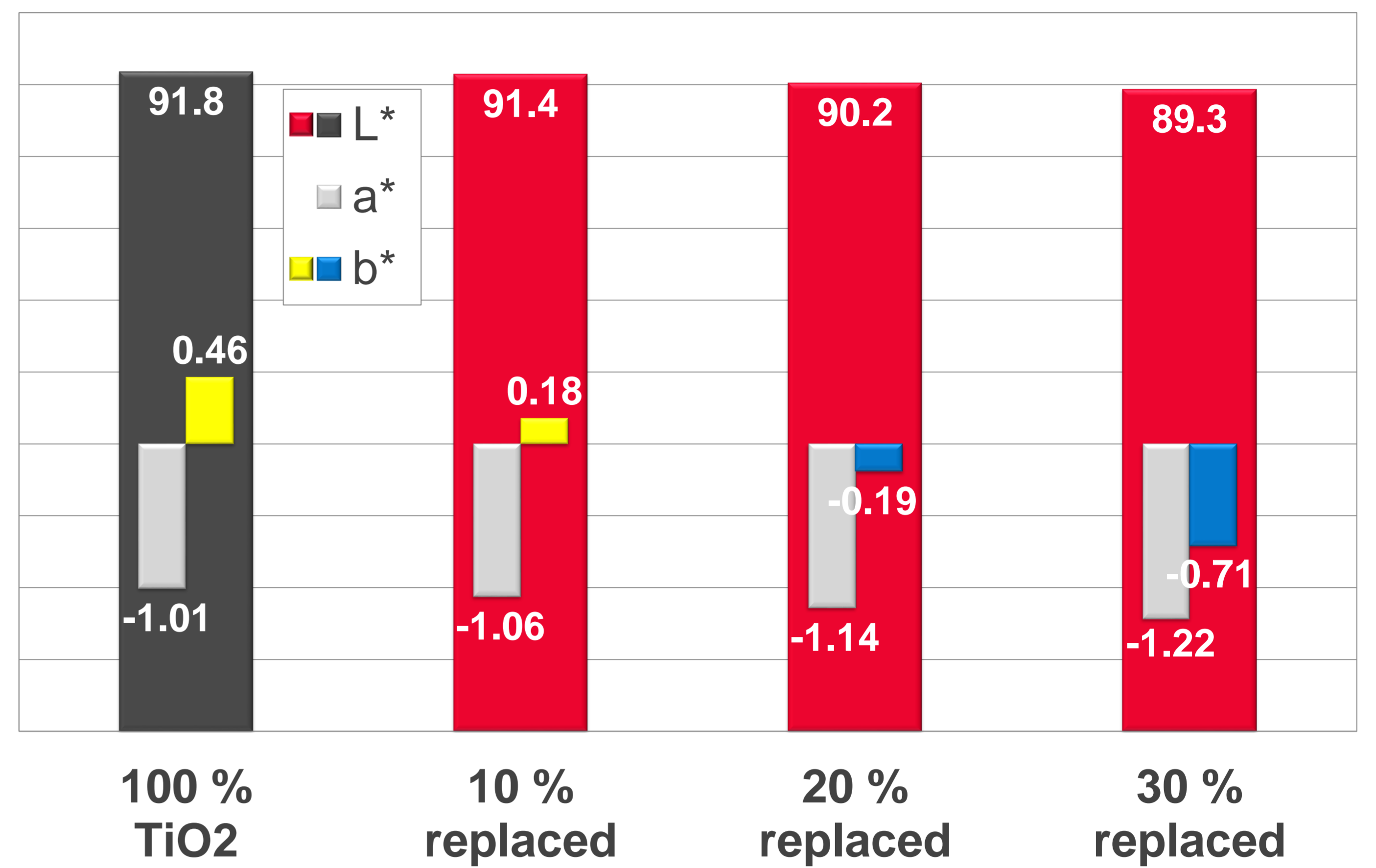
NEUBURG SILICEOUS EARTH IN WHITE THERMOPLASTICS PARTIAL TiO₂ REPLACEMENT IN POLYSTYRENE

White Polystyrene Plastic Parts

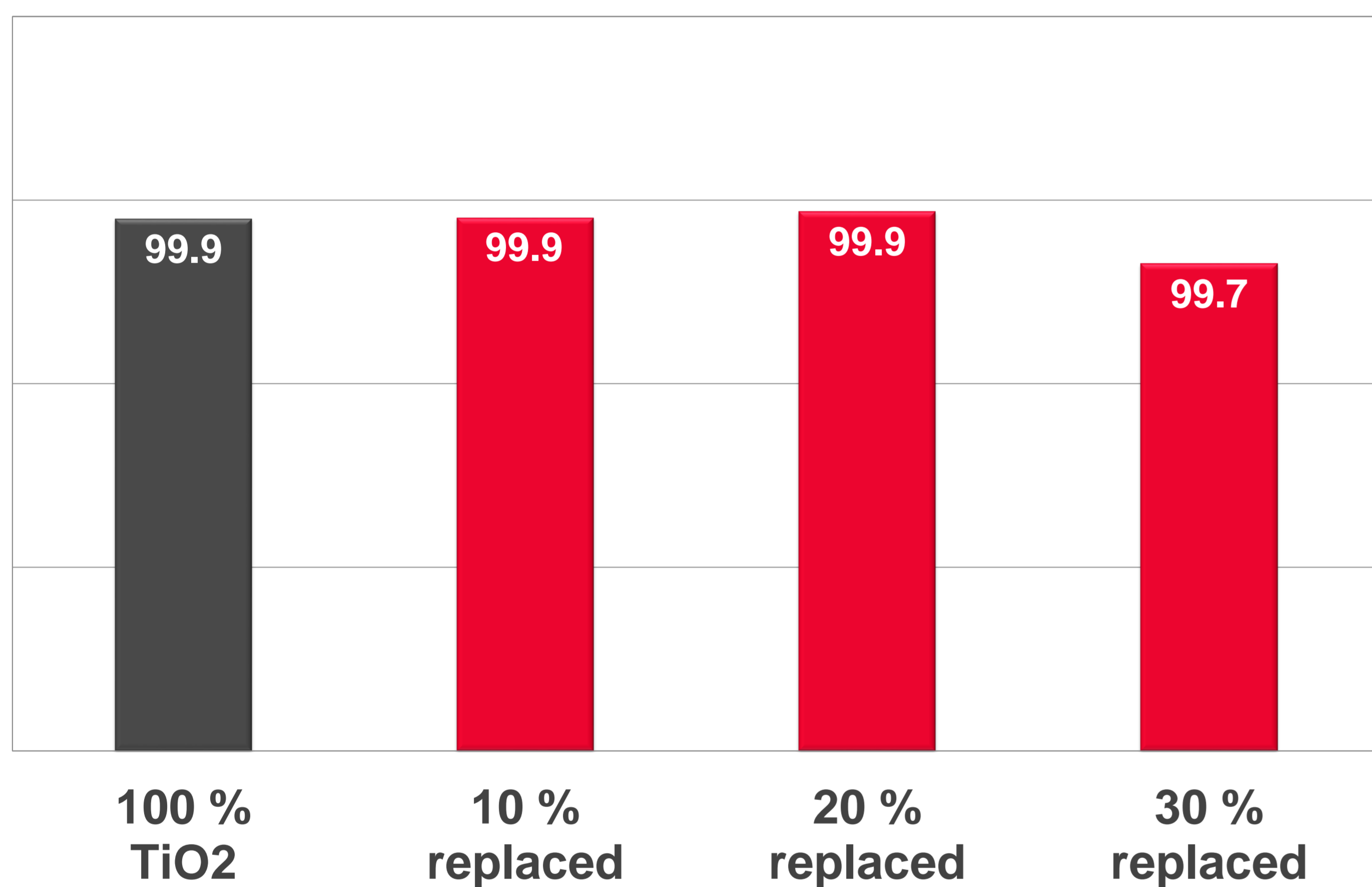
Replacement of TiO ₂		10 %	20 %	30 %
Polystyrene	99	99	99	99
Titanium dioxide (rutile)	1	0.9	0.8	0.7
Silfit Z 91	-	0.1	0.2	0.3

Determination of color and opacity on molded test specimen with graduated wall thickness.

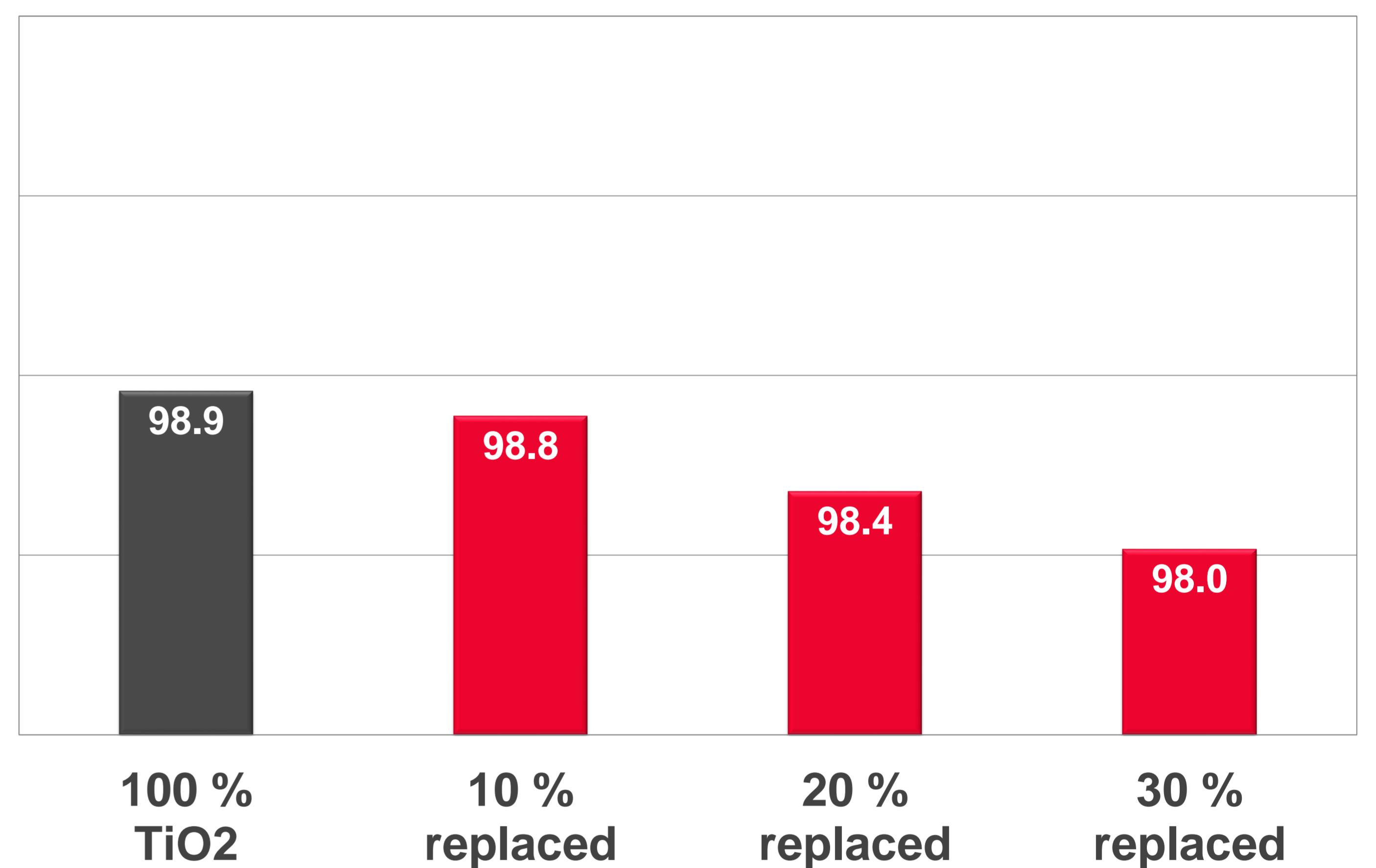
Color CIE-Lab, 4 mm wall thickness



Opacity, 4 mm wall thickness
Ratio L* black / white background [%]



Opacity, 2 mm wall thickness
Ratio L* black / white background [%]



Conclusion

Silfit Z 91 is well suited for a partial replacement of titanium dioxide in white plastics or masterbatch compounds:

- opacity and brightness of the plastic parts are largely retained
- a blue undertone of bluish titanium dioxide is supported and enhanced

Titanium dioxide replacement:

- for thick-walled plastic parts up to 30 %
- for thin-walled plastic parts 10 to 15 %