

20% to 45% PVC Water-based Coatings

- 1) Replace 10% of the TiO₂ with the same weight of FP-460
- 2) Remove 10% of the largest particle size extender/filler in the formulation

This will result in a slight reduction in the PVC of the paint which helps to maintain the gloss level of the reformulated paint. At this stage the opacity of the formulation should be checked and if necessary a small level of opaque polymer (typically between 0.5% and 1.0% on total formulation weight) should be added. If opaque polymer cannot be used, then one or two percentage points of TiO₂ should be added back to the formulation.

If the replacement is successful following the 10% protocol, then further reductions can be attempted and we recommend doing this in 2.5% increments.

E.g.

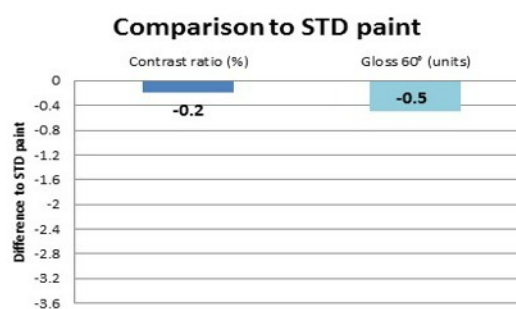
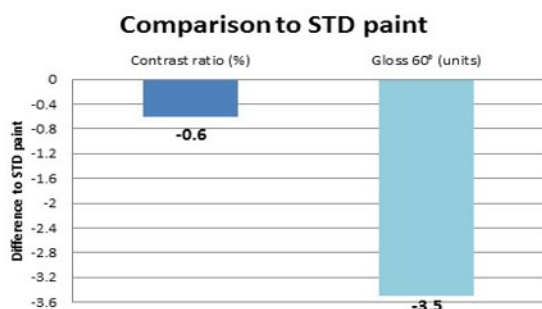
- 1) Replace 12.5% of the TiO₂ with the same weight of FP-460
- 2) Remove 10% of the largest particle size extender/filler in the formulation
- 3) Adjust opacity using small additions of opaque polymer or replacing some TiO₂

Gloss 15

Paint PVC ≈ 30 %

Paint Volume Solids ≈ 37 %

- **Weight to weight, 10 % TiO₂ replaced**
 - Differences in contrast ratio and gloss are clearly visible
- **Reformulated, 9 % TiO₂ replaced**
 - Successful reformulation: Contrast ratio and gloss within target range compared to STD paint



	STD	Changes	Reformulated for FP460
	wt %	wt %	wt %
TiO ₂	15	-1,35	13,65
FP460	0	1,35	1,35
< 1 micron GCC	12	-1,20	10,80
Opaque Polymer	0	0,60	0,60