

Supplementary Table S1 - Within group comparisons of ΔE values before and after immersion

| | | | Mean | SD | Mean difference | P Value | Interpretation |
|---------|---|----------------|-------|------|-----------------|---------|----------------|
| GROUP A | 1 | delta E before | 42.95 | 0.53 | 3.73 | 0.043 | Significant |
| | | delta E after | 39.21 | 0.65 | | | |
| | 2 | delta E before | 42.83 | 0.81 | 9.74 | 0.043 | Significant |
| | | delta E after | 33.09 | 0.42 | | | |
| | 3 | delta E before | 42.68 | 1.00 | -28.70 | 0.043 | Significant |
| | | delta E after | 71.38 | 1.83 | | | |
| | 4 | delta E before | 43.08 | 1.13 | 13.30 | 0.043 | Significant |
| | | delta E after | 29.78 | 1.18 | | | |
| GROUP B | 1 | delta E before | 33.41 | 0.45 | 2.66 | 0.043 | Significant |
| | | delta E after | 30.74 | 0.43 | | | |
| | 2 | delta E before | 33.44 | 0.44 | -6.10 | 0.043 | Significant |
| | | delta E after | 39.54 | 0.78 | | | |
| | 3 | delta E before | 33.19 | 0.55 | -41.19 | 0.043 | Significant |
| | | delta E after | 74.38 | 2.76 | | | |
| | 4 | delta E before | 34.12 | 0.91 | 14.95 | 0.043 | Significant |
| | | delta E after | 19.17 | 1.06 | | | |
| GROUP C | 1 | delta E before | 49.28 | 0.26 | 1.72 | 0.043 | Significant |
| | | delta E after | 47.56 | 0.63 | | | |
| | 2 | delta E before | 49.17 | 0.25 | 9.16 | 0.043 | Significant |
| | | delta E after | 40.01 | 1.46 | | | |
| | 3 | delta E before | 49.54 | 0.32 | 23.88 | 0.043 | Significant |
| | | delta E after | 73.42 | 3.29 | | | |
| | 4 | delta E before | 48.83 | 0.27 | 10.94 | 0.043 | Significant |
| | | delta E after | 37.88 | 0.52 | | | |

SD- Standard Deviation

Supplementary Table S2- Overall comparison of difference in ΔE between the groups

| | MEAN DELTA E DIFFERENCE | STANDARD DEVIATION | P VALUE | INTERPRETATION |
|---------|-------------------------|--------------------|---------|-----------------|
| GROUP A | 13.87 | 9.50 | | |
| GROUP B | 16.23 | 15.55 | 0.428 | NOT SIGNIFICANT |
| GROUP C | 11.43 | 8.34 | | |

Supplementary Table S3- Comparison of difference in ΔE in between the subgroups

| SUBGROUP | | | GROUP A | GROUP B | GROUP C |
|-----------------------|---|--|-------------|-------------|-------------|
| | | Mean ΔE difference | 3.73 | 2.66 | 1.72 |
| 1 | N | | 5.00 | 5.00 | 5.00 |
| | | Std. Deviation | 0.96 | 0.68 | 0.61 |
| | | Mean ΔE difference | 9.74 | -6.10 | 9.16 |
| 2 | N | | 5.00 | 5.00 | 5.00 |
| | | Std. Deviation | 0.97 | 0.90 | 1.54 |
| | | Mean ΔE difference | -28.70 | -41.19 | -23.88 |
| 3 | N | | 5.00 | 5.00 | 5.00 |
| | | Std. Deviation | 1.11 | 2.41 | 3.01 |
| | | Mean | 13.30 | 14.95 | 10.94 |
| 4 | N | | 5.00 | 5.00 | 5.00 |
| | | Std. Deviation | 0.63 | 1.40 | 0.75 |
| P VALUE | | | <0.001 | <0.001 | 0.001 |
| INTERPRETATION | | | SIGNIFICANT | SIGNIFICANT | SIGNIFICANT |

Supplementary Table S4- Comparison of ΔE difference in each staining solution between composite materials

| | | GROUP A | GROUP B | GROUP C | P VALUE (ANOVA) | PAIRWISE COMPARISON TEST N (POST HOC) SIGNIFICANCES) |
|---|---------------------------|---------|---------|---------|--------------------|--|
| 1 | Mean | 3.73 | 2.66 | 1.72 | | |
| | Std. Deviation | 0.96 | 0.68 | 0.61 | 0.018* | b |
| 2 | Mean | 9.74 | -6.10 | 9.16 | | |
| | Std. Deviation | 0.97 | 0.90 | 1.54 | 0.009* | a, c |
| 3 | Mean | -28.7 | -41.2 | -23.9 | | |
| | Std. Deviation | 1.11 | 2.41 | 3.01 | 0.002* | a, b, c |
| 4 | Mean | 13.30 | 14.95 | 10.94 | | |
| | Std. Deviation | 0.63 | 1.40 | 0.75 | 0.003* | b, c |

* statistically significant; Difference between A and B- a; Difference between A and C- b; Difference between B and C- c

Supplementary Table S5: National Bureau of Standards (NBS) system of expressing color differences

| NBS Units | Critical Remarks of Color Differences |
|------------|---------------------------------------|
| 0.0-0.5 | Excessively mere change |
| 0.5-1.5 | Mere: Mere change |
| 1.5-3 | Noticeable: Perceivable change |
| 3-6 | Appreciable: Prominent change |
| 6-12 | Much: Excessively marked change |
| 12 or more | Very much: Change to other color |