

**Supplementary Table 2.** Association between cosmetic habits and biophysical parameters after adjusting for age and geographical region

|                               | Hydration (AU) |             | TEWL (g/m <sup>2</sup> ) |             | Sebum (μg/cm <sup>2</sup> ) |             | Elasticity (R2, ratio) |             |
|-------------------------------|----------------|-------------|--------------------------|-------------|-----------------------------|-------------|------------------------|-------------|
|                               | Beta           | p-value     | Beta                     | p-value     | Beta                        | p-value     | Beta                   | p-value     |
| Frequency of sunscreen usage  |                |             |                          |             |                             |             |                        |             |
| Never                         | (Reference)    | (Reference) | (Reference)              | (Reference) | (Reference)                 | (Reference) | (Reference)            | (Reference) |
| Sometimes                     | -0.104         | 0.401       | -0.149                   | 0.276       | -0.246                      | 0.028*      | 0.254                  | 0.058       |
| Always                        | 0.107          | 0.389       | -0.208                   | 0.129       | -0.289                      | 0.010*      | 0.281                  | 0.037*      |
| Daily base makeup             |                |             |                          |             |                             |             |                        |             |
| No                            | (Reference)    | (Reference) | (Reference)              | (Reference) | (Reference)                 | (Reference) | (Reference)            | (Reference) |
| Yes                           | 0.134          | 0.004**     | -0.142                   | 0.005**     | 0.025                       | 0.589       | 0.054                  | 0.284       |
| Types of moisturizer of usage |                |             |                          |             |                             |             |                        |             |
| No or toner only              | (Reference)    | (Reference) | (Reference)              | (Reference) | (Reference)                 | (Reference) | (Reference)            | (Reference) |
| Light                         | 0.333          | 0.001**     | -0.222                   | 0.036*      | -0.135                      | 0.124       | 0.199                  | 0.055       |
| Heavy                         | 0.336          | 0.001**     | -0.348                   | 0.001**     | -0.158                      | 0.072       | 0.329                  | 0.002**     |

AU: arbitrary units, TEWL: transepidermal water loss, Beta: standardized regression coefficient. \* $p < 0.05$ , \*\* $p < 0.01$ .