

```
standard surface
1 - opacity
                      opacity
                                +
transparency
                        coat
                                       lerp(coat, white, coat_color * (1 - reflectance(coat_brdf))
                   coat_brdf
                                                            metalness
          emission * emission color
                                                  1 - metalness
                                                                   metal_brdf
                          emission
                                                          - specular * specular_color * reflectance(spec_brdf)
                 specular * specular_color
                                  spec_brdf
                                                                   transmission * (transmission_depth == 0 ?
                                                                                   transmission_color : 1)
                                                1 - transmission
                                      +
                                                                       spec btdf
          sheen * sheen_color
                                                  - sheen * reflectance(sheen_brdf)
                                                     +
                sheen_brdf
                                                                   subsurface * subsurface_color
 (1 - subsurface) * base * base_color
                                                                                (+)
                                                            thin_walled
                                                                                           1 - thin_walled
                        diffuse_brdf
                                                          diffuse_btdf
                                                                                            subsurface
```