| Transparency | Emission *additive* | Specular reflection (metal) | Specular reflection (coating) | | |
| --- | --- | --- | --- | --- | --- |
| | | | Specular reflection | | |
| | | | Specular transmission* | Specular retro-reflection (sheen)* | |
| | | | | Diffuse reflection | Diffuse transmission* | Subsurface scattering* |

```
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 |  1 - specular * specular_color * reflectance(spec_brdf)
              |           |
          spec_brdf      (+)
                          |         transmission * transmission_color
          1 - transmission |              |
              |           (+)          spec_btdf
sheen * sheen_color |  1 - sheen * reflectance(sheen_brdf)
          |        (+)
      sheen_brdf    |                    (1 - subsurface) * base * base_color
subsurface * subsurface_color |              |
              |              (+)          diffuse_brdf
thin_walled |  1 - thin_walled
      |        |
diffuse_btdf  subsurface
```