

$$m = 0.13 \tag{1}$$

$$\rho_d = 0.3, 0.0\vec{5}, 0.05 \tag{2}$$

$$\rho_s = 0.0, 0.\vec{2}, 1.0 \tag{3}$$

$$f = \frac{\rho_d}{\pi} + \frac{\rho_s}{\pi} * \frac{D * G}{(\vec{n} \cdot \vec{\omega}_i) * (\vec{n} \cdot \vec{\omega}_o)} \tag{4}$$

$$G = \min(1, \min(\frac{2 * (\vec{n} \cdot \vec{h}) * (\vec{n} \cdot \vec{\omega}_o)}{(\vec{h} \cdot \vec{\omega}_o)}, \frac{2 * (\vec{n} \cdot \vec{h}) * (\vec{n} \cdot \vec{\omega}_i)}{(\vec{h} \cdot \vec{\omega}_o)})) \tag{5}$$

$$D = \frac{1}{(m^2) * (\cos \theta_h)^4} * \exp -((\tan \theta_h)/m)^2 \tag{6}$$