Disney Aniso Specular - based on Kajiya-Kay 1989

$$\text{normalize}(\vec{u}) = \frac{\vec{u}}{\sqrt{\vec{u} \cdot \vec{u}}} \tag{1}$$

Tangent vector:

$$X = \text{normalize}(0, \vec{1}, 0 \times \vec{n}) \tag{2}$$

Bitangent vector:

$$Y = \text{normalize}(\vec{n} \times X) \tag{3}$$

$$T = Y \tag{4}$$

$$L = \vec{\omega_i} \tag{5}$$

$$\text{roughness} = 0.1 \tag{6}$$

$$\text{glossiness} = (1/\text{roughness}) \tag{7}$$

$$\text{sinAngleLT} = \sqrt{(1 - ((\vec{\omega_i} \cdot T) * (\vec{\omega_i} \cdot T)))} \tag{8}$$

$$\text{spec} = ((\text{sinAngleLT} \cdot \sqrt{(}1 - ((\vec{\omega_o} \cdot T) \cdot (\vec{\omega_o} \cdot T)))) - ((\vec{\omega_i} \cdot T) \cdot (\vec{\omega_o} \cdot T)))^{\text{glossiness}} \tag{9}$$

$$f = \text{spec} \tag{10}$$