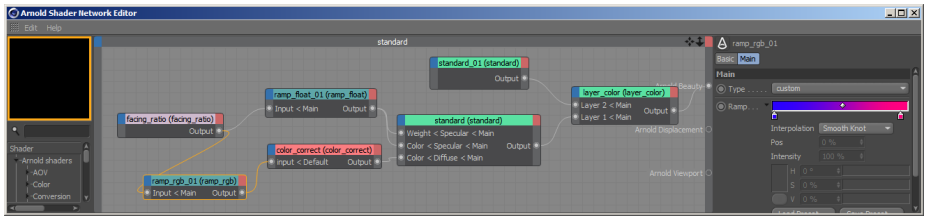
Facing Ratio

Tinted car paint effect using *facing_ratio* (rollover image)

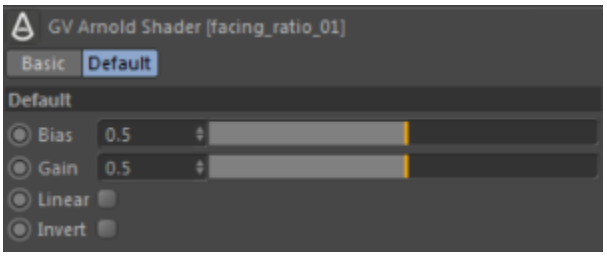
This shader returns the absolute value of the dot product between the shading normal and the incoming ray direction. It is also named *incidence* in other renderers. Unlike the *utility* shader used in *ndoteye* mode, *facing_ratio* works for any type of ray, not just camera rays. The returned values are always in the [0..1] range.



Shader network for car image above

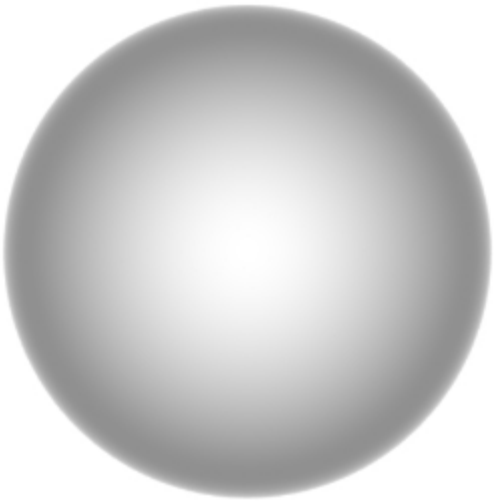
Scene files that demonstrate the facing ratio shader can be found **here.**

Video tutorials that demonstrate the facing ratio shader can be found **here** and **here**.

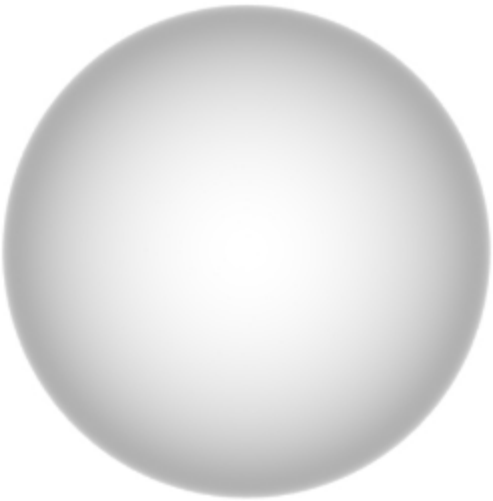


Bias

Push or pull values by altering the slope at the beginning of the range. Bias values below 0.5 decrease the slope and lower values overall. Above 0.5, the slope is higher, and the value grows more quickly. A value of 0.5 has no effect.



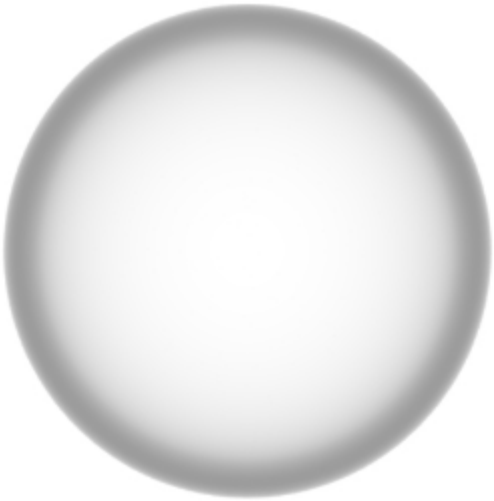
0.25



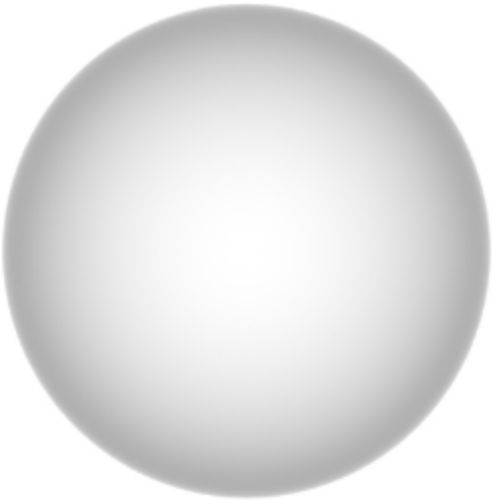
0.5 (default)

Gain

Increase or decrease the slope of the mid-range values. Gain values below 0.5 increase the contrast whereas values above 0.5 flatten the mid-range values. A value of 0.5 has no effect.



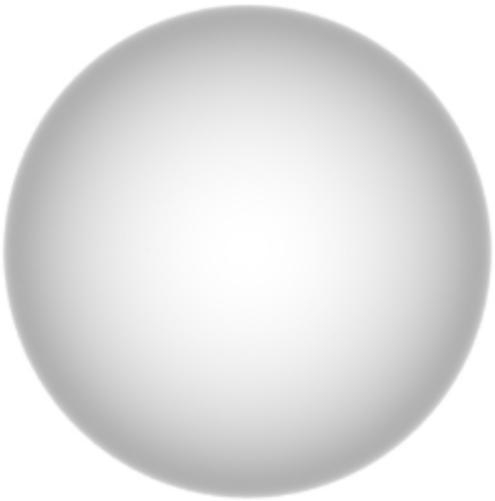
0.25



0.5 (default)

Linear

When enabled, the *facing_ratio* shader will output a linear, normalized angle instead of N·Eye.

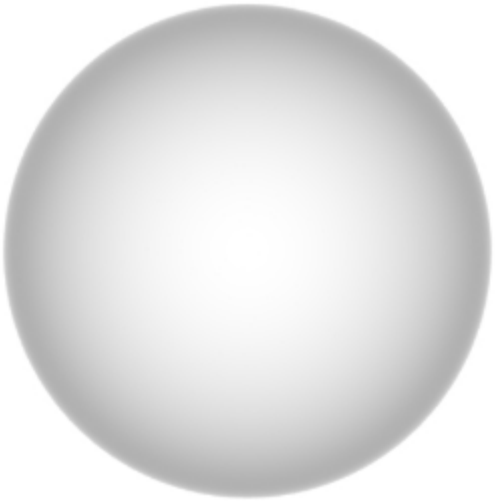


Disabled (default)

Enabled

Invert

Return the complement of the result (1 - x).



Disabled (default)

Enabled