VRayMtl examples

The Roughness parameter

This example demonstrates the effect of the **Roughness** parameter. Note how as the **Roughness** increases, the materials appears more "flat" and dusty.

Roughness is ***0.0*** (regular diffuse material)

Roughness is ***0.3***

Roughness is ***0.6***

The Reflection color parameter

This example demonstrates how the **Reflection color** parameter controls the reflectivity of the material. Note that this color also acts as a filter for the diffuse color (e.g. stronger reflections dim the diffuse component).

Reflection color is black ***(0, 0, 0)***

Reflection color is medium grey ***(128, 128, 128)***

Reflection color is white ***(255, 255, 255)***

The Reflection glossiness parameter

This example demonstrates how the **Reflection glossiness** and **Hilight glossiness** parameters control the hilights and reflection blurriness of the material.

Reflection/**Hilight Glossiness** is ***1.0*** (perfect mirror reflections)

Reflection/**Hilight glossiness** is ***0.8***

Reflection/**Hilight glossiness** is ***0.6***

The Energy preservation mode parameter

This example demonstrates how the **Energy preservation mode** controls the way reflections dim the diffuse color.

Reflection color is medium grey *(128, 128, 128)*

Reflection color is medium green *(0, 128, 0)*

Energy preservation is ***RGB***

Energy preservation is ***Monochrome***

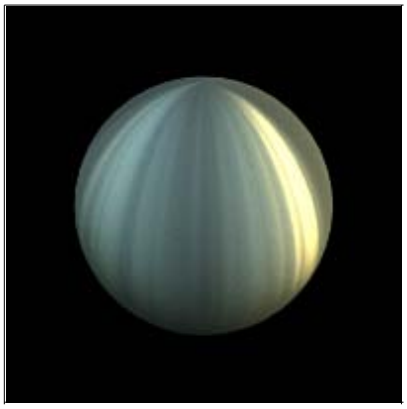
The Fresnel option

This example demonstrates the effect of the **Fresnel** option. Note how the strength of the reflection varies with the **IOR** of the material. For this example, the **Reflection color** is pure white ***(255, 255, 255)***.

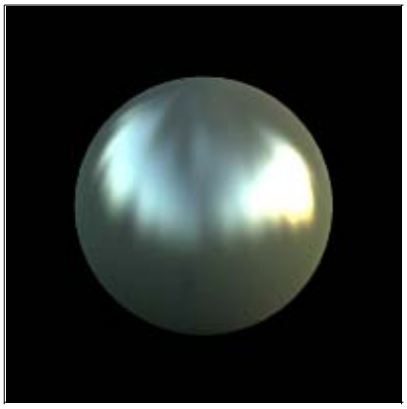
Fresnel is ***off*** **Fresnel** is ***on***, **IOR** is ***1.3*** **Fresnel** is ***on***, **IOR** is ***2.0*** **Fresı**

The Anisotropy parameter

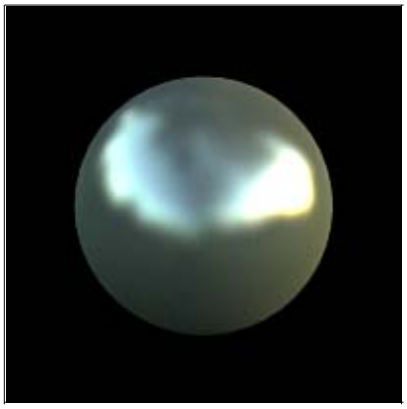
This example demonstrates the effect of the **Anisotropy** parameter. Note how the different values stretch the reflections horizontally or vertically.



Anisotropy is ***-0.9***



Anisotropy is ***-0.45***



Anisotropy is ***0.0*** (no anisotropy)

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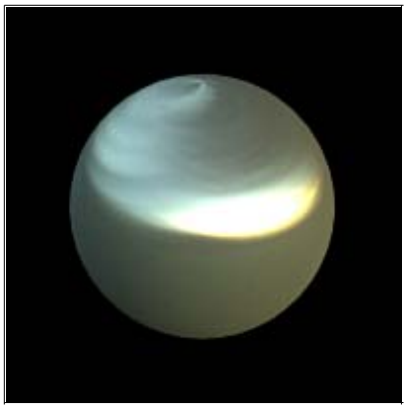
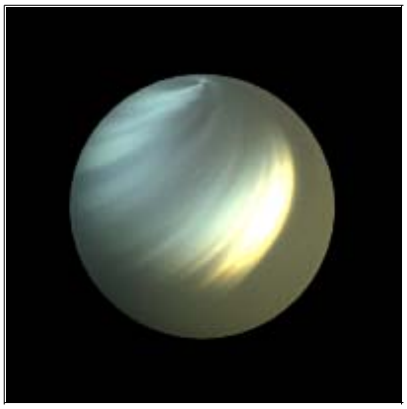
The Anisotropy rotation parameter

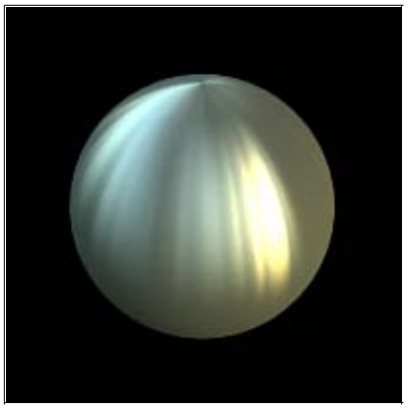
This example demonstrates the effect of the **Anisotropy rotation** parameter. For all the images in this example, the **Anisotropy** parameter itself is ***0.8***.



Anisotropy rotation is ***0.0*** degrees



Anisotropy rotation is ***45.0*** degrees



Anisotropy rotation is ***90.0*** degrees

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The Refraction color parameter

This example demonstrates the effect of the **Refraction color** parameter to produce glass materials. For the images in this example, the material is with a grey **Diffuse color**, white **Reflection color** and Fresnel option ***on***.

Refraction color is black ***(0, 0, 0)*** (no refraction)

Refraction color is light grey ***(192, 192, 192)***

Refraction color is white ***(255, 255, 255)***

The Refraction glossines parameter

This example demonstrates the effect of the **Refraction glossiness** parameter. Note how lower **Refraction glossiness** values blur the refractions and cause the material to appear as frosted glass.

Refraction glossiness is ***1.0***

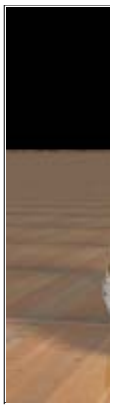
Refraction glossiness is ***0.9***

Refraction glossiness is ***0.8***

The Refraction IOR parameter

This example demonstrates the effect of the **Refraction IOR** parameter. Note how light bends more as the IOR deviates from ***1.0***. The case when the index of refraction (IOR) is ***1.0*** produces a transparent object. Note however, that in the case of transparent objects, it might be better to assign an opacity map to the material, rather than use refraction.



Refraction IOR is ***0.8*** **Refraction IOR** is ***1.0*** **Refraction IOR** is ***1.3*** **Refr**

The Refraction depth parameter

This example demonstrates the effect of the **Refraction depth** parameter. Note how too low refraction depth produces wrong results. Also, in the last two examples, note how areas with total internal reflection are also affected by the **Reflection depth**.




Refraction depth is ***1*** **Refraction depth** is ***2*** **Refraction depth** is ***4*** **Refr**
Reflection depth is ***5*** **Reflection depth** is ***5*** **Reflection depth** is ***5*** **Refl**

The refraction Exit color parameter

This example demonstrates the effect of the refraction **Exit color** parameter. This is mostly useful to show areas of deep refractions in the image, or materials needing higher refraction depth. Note how the red areas are reduced when the **Reflection depth** and **Refraction depth** are increased.



Refraction **Exit color** is ***off***; **Reflection depth** and **Refraction depth** are set to ***5***	Refraction **Exit color** is ***on*** and set to red ***(255, 0, 0)***; **Reflection depth** and **Refraction depth** are set to ***5***	Refraction **Exit color** is ***on***, **Reflection depth** and **Refraction depth** are set to ***8***

The Fog color parameter

This example demonstrates the effect of the **Fog color** parameter. Notice how the thick areas of the object are darker in the two images on the right because of the light absorption of the fog.

Fog color is white ***(255, 255, 255)*** (no light absorption)	**Fog color** is grey ***(243, 243, 243)***	**Fog color** is green ***(230, 243, 213)***

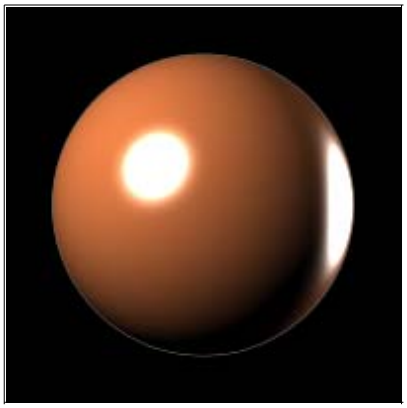
The Fog multiplier parameter

This example demonstrates the effect of the **Fog multiplier** parameter. Smaller values cause less light absorption because of the fog; while higher values increase the absorption effect.

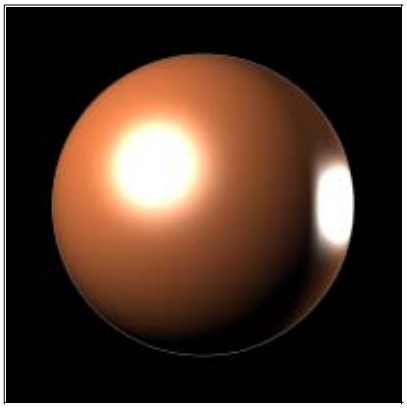
Fog multiplier is ***0.5***	**Fog multiplier** is ***1.0***	**Fog multiplier** is ***1.5***

The BRDF type

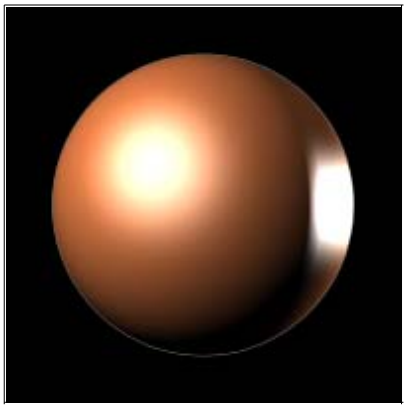
This example demonstrates the differences between the BRDFs available in V-Ray. Note the different hilights produced by the different BRDFs.



BRDF type is ***Phong***



BRDF type is ***Blinn***



BRDF type is ***Ward***