

10.2.1.4.1 Render - Blender Render Engine - Materials - Material Properties - Introduction

Material Properties.....	1
Introduction to Properties.....	2
Material Properties.....	2

Material Properties

- Introduction to Properties
 - Material Properties
- Material Preview
 - Options
 - Examples
- Diffuse Shaders
 - Common Options
 - Technical Details
 - Lambert
 - Oren-Nayar
 - Minnaert
 - Fresnel
- Specular Shaders
 - Common Options
 - CookTorr
 - Phong
 - Blinn
 - WardIso
- Color Ramps
 - Options
- Shading
- Transparency
 - Common Options
 - Z Buffer
 - Raytraced Transparency
 - Options
 - Examples
 - Transparent shadows
 - IOR values for Common Materials
- Mirror Reflections
 - Options
 - Examples
- Subsurface Scattering
 - How it works

- Enabling Subsurface Scattering
- Options
- Developing your own SSS material
- A more intuitive approach
- Examples
- See also
- Strands
 - Strands Shading
 - Texturing along the Strand
 - Strand render Simplification
- Options
- Shadows
 - Options

Introduction to Properties

Material Properties

Materials can have a wide array of properties. It is the combination of all of these things that define the way a material looks, and how objects using that material will appear when rendered. These properties are set using the various Properties panels.

Remember that the appearance of your materials are affected by the way that they are rendered (surface, wire, volume or halo), and by the rendering engine (Blender, Cycles, or Game) used. Most properties for images rendered using Cycles can only be controlled using the Node system.

The list below sets out the various Properties panels available in Blender Render and Game Engine, and brief details of their scope. Details of their controls and settings are given on the relevant pages.

Preview

A preview of the current material mapped on to one of several basic objects.

Diffuse Shaders

The basic color of the material, together with different models for dispersion.

Specular Shaders

The reflected highlights: color, strength and different models for dispersion.

Color Ramps

How to vary the base color over a surface in both Diffuse and Specular shaders.

Shading

Properties of various characteristics of the shading model for the material.

Transparency

Can other objects be seen through the object, and if so, how?

Mirror

(Only Blender Render): Reflective properties of the material.

SubSurface Scattering

(Only Blender Render): Simulates semi-translucent objects in which light enters, bounces around, then exits in a different place.

Strand

(Only Blender Render): For use when surfaces are covered with hair, fur, etc.

Options

Various options for shading and coloring the object.

Shadow:

Controls how objects using this material cast and receive shadows.

Game Settings

(Only Blender Render): Controls settings for real-time rendering of Game Engine objects.