

Overview

A [Diffuse map](#) is the most common kind of texture map. It defines the color and pattern of the object. Mapping the diffuse color is like painting an image on the surface of the object.

For example, if you want a wall to be made out of brick, you can choose an image file with a photograph of bricks. A good diffuse texture has no directional light painted in it. Different surfaces reflect light different ways and it should already be visible in the diffuse map.

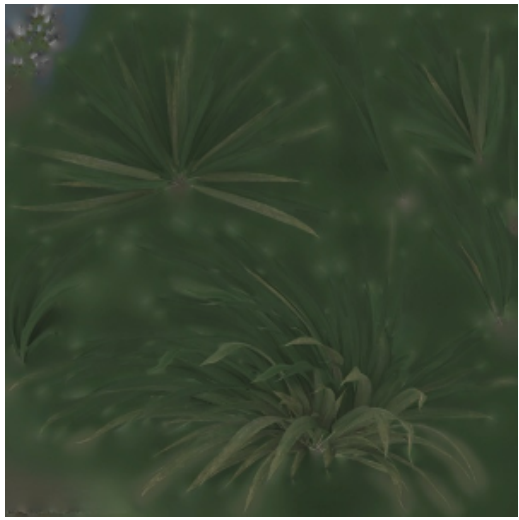
You should also take care to achieve the right darkness of the texture. Too light or too dark texture will require too much diffuse color compensation which will ruin the final result.

It can be combined with various other maps to create more definition. Some maps which are often overlaid with diffuse are [ambient occlusion](#) and cavity maps.

For additional information on best-practices when creating texture maps for Physically Based Shading, see: [Creating Textures for Physically Based Shading](#).

Examples

Vegetation Bush



Diffuse RGB



Diffuse Alpha

Decal Puddle

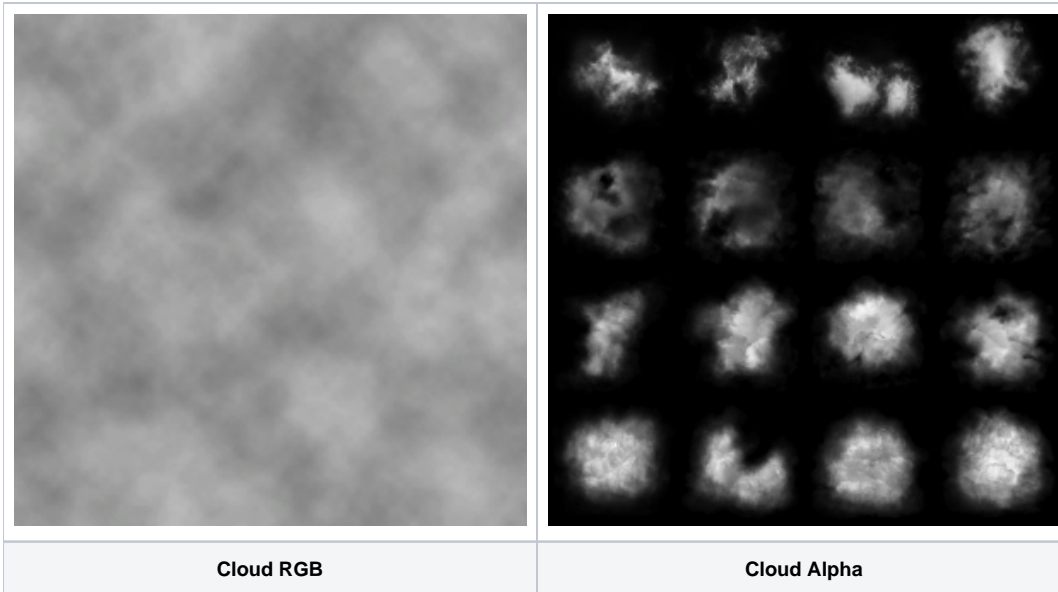


Decal RGB

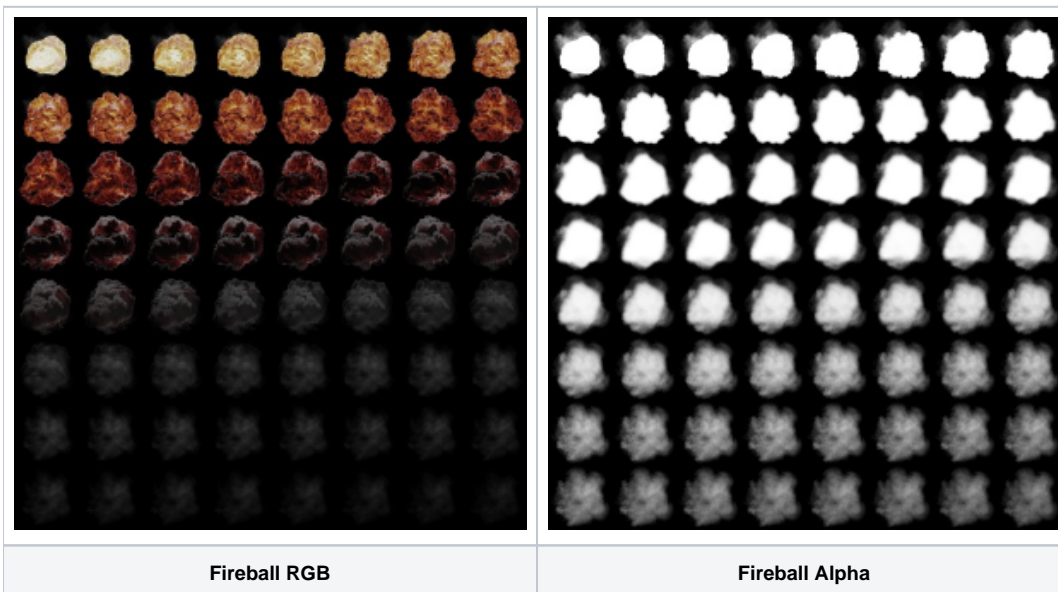


Decal Alpha

Cloud Atlas



Animated Fireball



Tips

Some notes to keep in mind which often determine a good diffuse texture:

- UV maps are laid out so that there is a decent compromise of space utilization and stretching.
- No directional lighting information is baked.
- Cracks or holes have been darkened by painting or by an occlusion map.
- Base texture features crisp color or contrast to define variations in shapes to break up the image.