Modelação e Visualização Tridimensional em Arquitetura

Visualização em Arquitetura

Materiais e Texturas
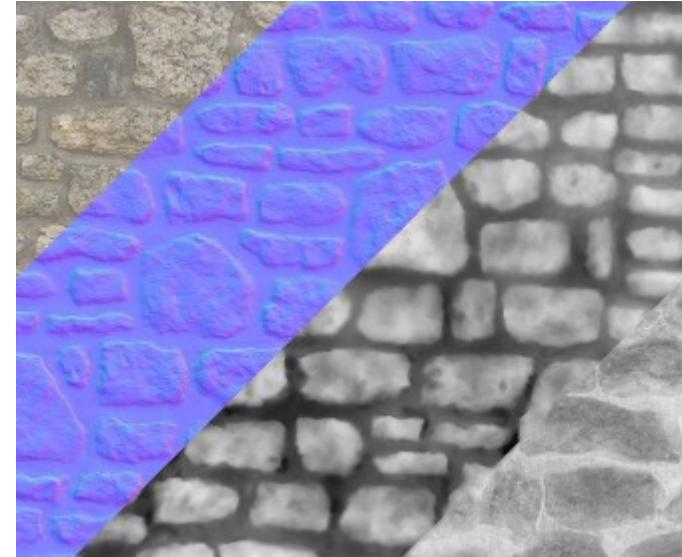
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Twinmotion

PBR Material

PBR material:

As in Unreal Engine, Twinmotion uses the Roughness/Metallic workflow to create a PBR material in Twinmotion. Five different maps are required: Diffuse/Albedo map, Normal map, Roughness map, Metallic map, and Glow map.

PBR material: Diffuse/Albedo map (RGB)
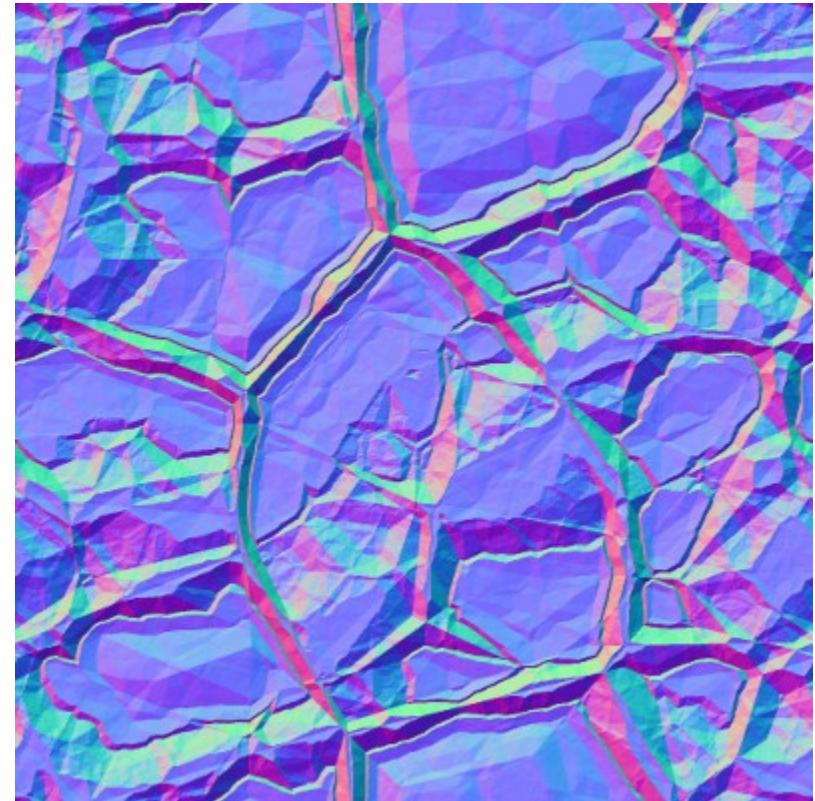
The diffuse map is the most basic texture map. It defines the surface main color and pattern.

In Twinmotion the diffuse map can also contain an alpha channel that you can activate the transparency by switching ON and OFF the "Opacity mask."

PBR material: Normal map (RGB)

The normal map gives relief to the PBR material.
It's a blue/purple texture

PBR material: Roughness map (Grayscale)

The roughness map defines how rough or smooth your material will be. It's a grayscale texture where white represents rough and black represents reflective.
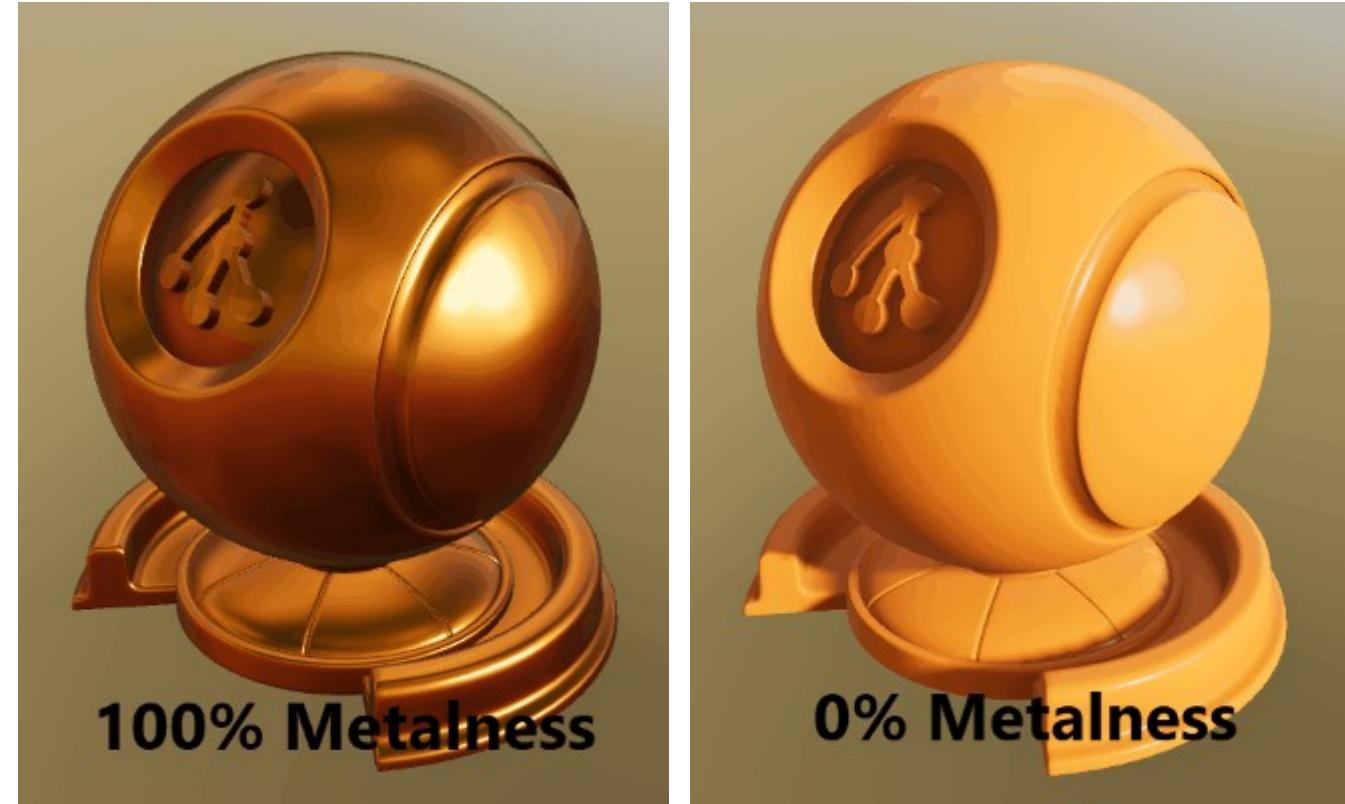
In Twinmotion, when the "Reflection" slider is set to 50%, it will use the exact roughness texture you have loaded. When decreasing this slider, it will slowly blend your texture with a white color making your material rougher. On the other hand, when increasing the value, it will blend your texture with a black color making your material smoother.

PBR material: Metallic map (Grayscale)

The metallic map defines which part of your material is metallic. It's a grayscale texture where white represents fully metallic and black represents non-metallic.
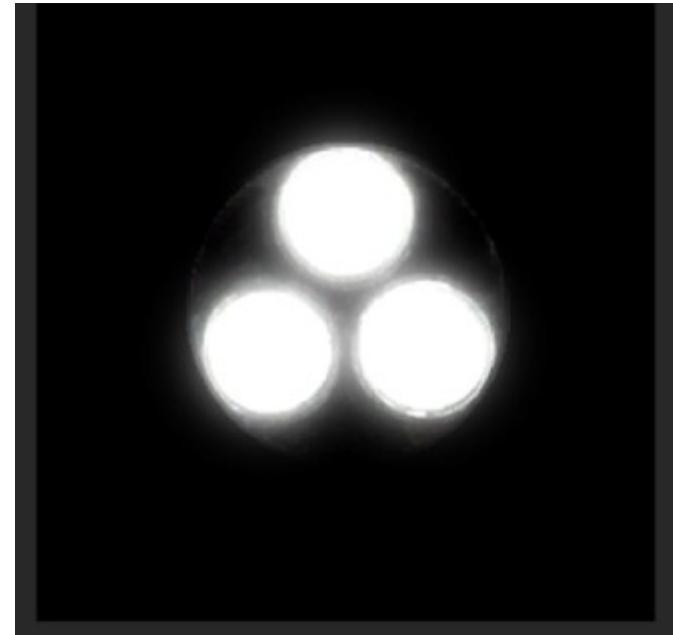
When the Metallic slider is set to 100%, it will use the exact texture you have uploaded.

100% Metalness

0% Metalness

PBR material: Glow map

The glow map can be used to define **where your material will emit light**. **It doesn't actually create a light source**; it will just make your material shine. The glow map uses a standard texture where black will not emit light and all the other colors will.

Day& Night cycle is on the list of "Glow" settings. When this option is activated, the PBR material will only begin to glow when the sun goes down. During the daytime, only the diffuse map of the material will be displayed.

best practices:

The .PNG is the most optimized texture format for Twinmotion and for real-time renders in general.

Work with multiples of 2, like 512×512 pixels, 1024×1024 pixels, and 2048×2048 pixels. Avoid going over 2048 because it will quickly lower your framerate. Most of Twinmotion native materials are in a 2K resolution.

Use seamless textures. Otherwise, you'll see edges when the pattern repeats.

Rhinoceros 3D

Textures: UV Mapping

Uv Mapping in Rhino3D