## **Unreal Materials And Material Instances**

This page provides information on the native Unreal Materials and Material Instances.

## **Overview**

V-Ray for Unreal support the rendering of native Unreal Materials and Material Instances. Materials are used to calculate how light interacts with surfaces. These calculations are done using incoming data that is input to the Material from a variety of images (textures) and math expressions, as well as from various property settings inherent to the Material itself. Each time a change is made in the material it has to recompile which can be very time consuming depending on the complexity of the shading graph. Material instancing is used to change the appearance of a Material without incurring an expensive recompilation of the Material using predefined parameters. For more information on Unreal Materials and Material Instances check the Materials documentation.



## **Supported Expressions**

Below are listed the expressions in the Material Editor that are supported by V-Ray for Unreal.

Native Unreal Materials are supported in Hybrid rendering. Make sure you meet the System Requirements.

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If the Coordinate Index in the **TextureCoordinate** node in a material is set to a certain value and the material is applied to a Static mesh that doesn't have a corresponding UV channel, then that mesh will not render correctly in V-Ray. For example, the Coordinate Index in a material that is applied to a static mesh is set to 3 but the mesh has only 2 UV channels then the render result will be inaccurate.

## Supported Material Inputs, Blend Modes and Shading Models

Below are listed all inputs, Blend modes and Shading models in the Material Editor that are supported by V-Ray for Unreal.

Inputs		Blend Modes	
Base Color	SUPPORTED	Opaque	SUPPORTED
Metallic	SUPPORTED	Masked	SUPPORTED
Specular	SUPPORTED	Translucent	SUPPORTED
Roughness	SUPPORTED	Additive	NOT SUPPORTED
Emissive Color	SUPPORTED	Modulate	NOT SUPPORTED
Opacity	SUPPORTED	Alpha Composite	SUPPORTED
Opacity Mask	SUPPORTED		
Normal	SUPPORTED		
World Position Offset	NOT SUPPORTED		
World Displacement	NOT SUPPORTED		
Tessellation Multiplier	NOT SUPPORTED		

Shading Modes	
Unlit	SUPPORTED
Default Lit	SUPPORTED
Subsurface	SUPPORTED
Preintegrated Skin	NOT SUPPORTED
Clear Coat	SUPPORTED
Subsurface Profile	NOT SUPPORTED
Two Sided Foliage	SUPPORTED
Hair	NOT SUPPORTED
Cloth	NOT SUPPORTED
Eye	NOT SUPPORTED

Subsurface Color	SUPPORTED	▲ Material			
Clear Coat	SUPPORTED	Material Domain	Surface	•	
Clear Coat Roughness	SUPPORTED	Blend Mode	Opaque Opaque	▼ ▲ Material	
Ambient Occlusion	NOT SUPPORTED	Decal Blend Mode	Masked Translucent	Material Domain	Surface
Refraction	NOT SUPPORTED	Shading Model	Additive	Blend Mode	Opaque
Pixel Depth Offset	NOT SUPPORTED	Two Sided	AlphaComposite		Translucent
Shading Model	NOT SUPPORTED		•	Shading Model	Default Lit
ClearCoatBottomNormal	SUPPORTED			Two Sided	Unlit Default Lit
				Use Material Attribute	Subsurface

Clear Coat Two Sided Foli

Hall Cloth Eye ₹

Subsurface Profile

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	UnrealMtl
	O• Base Color
	O• Metallic
	O• Specular
	O Roughness
	O• Emissive Color
	O• Opacity
	O• Opacity Mask
	O• Normal
	O Subsurface Color
	O• Clear Coat
	O Clear Coat Roughness
	O• Ambient Occlusion
	ClearCoatBottomNormal
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