Filament

CRAFTING PHYSICALLY-BASED MATERIALS

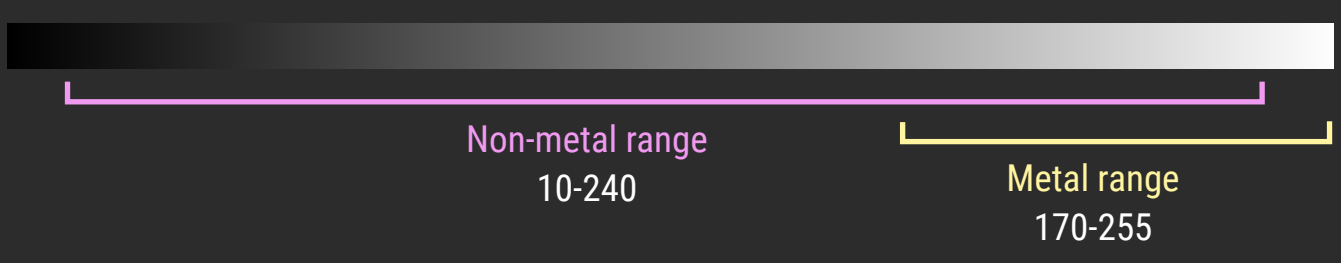
BASE COLOR/sRGB

Defines the perceived color of an object (sometimes called **albedo**). More precisely:

→ the **diffuse color** of a **non-metallic** object

→ the **specular color** of a **metallic** object

BASE COLOR LUMINOSITY



METALLIC SAMPLES

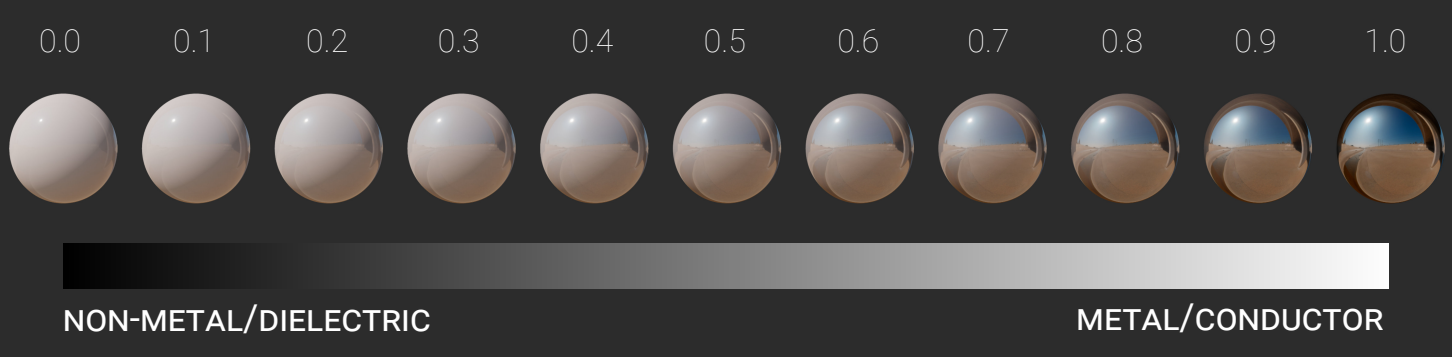
Silver	Aluminum	Platinum	Iron	Titanium	Copper	Gold	Brass
250, 249, 245	244, 245, 245	214, 209, 200	192, 189, 186	206, 200, 194	251, 216, 184	255, 220, 157	244, 228, 173
#faf9f5	#faf5f5	#d6d1c8	#c0bdba	#cec8c2	#fbd8b8	#fedc9d	#f4e4ad

NON-METALLIC SAMPLES

Coal	Rubber	Mud	Wood	Vegetation	Brick	Sand	Concrete
50, 50, 50	53, 53, 53	85, 61, 49	135, 92, 60	123, 130, 78	148, 125, 117	177, 168, 132	192, 191, 187
#323232	#353535	#553d31	#875c3c	#7b824e	#947d75	#b1a884	#c0bfbb

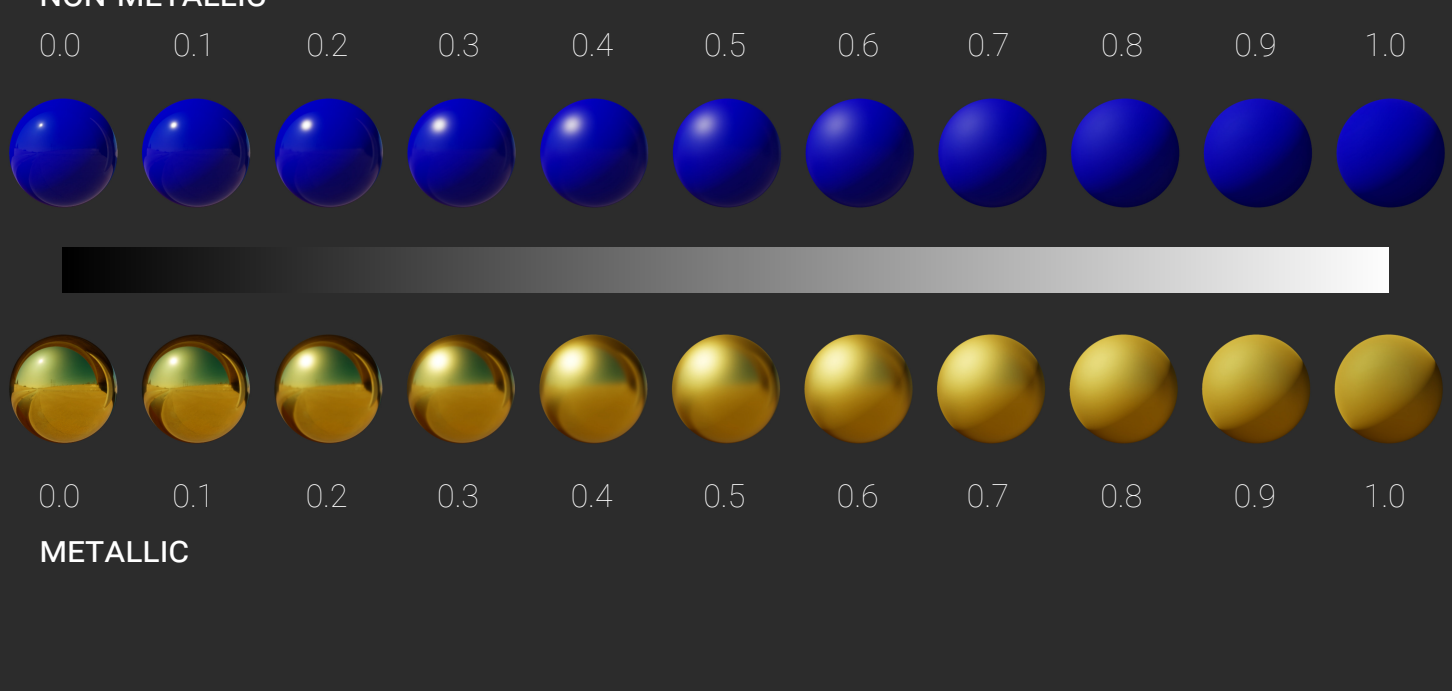
METALLIC/GRAYSCALE

Defines whether a surface is **dielectric** (0.0, **non-metal**) or **conductor** (1.0, **metal**).
Pure, unweathered surfaces are rare and will be either **0.0** or **1.0**.
Rust is not a conductor.



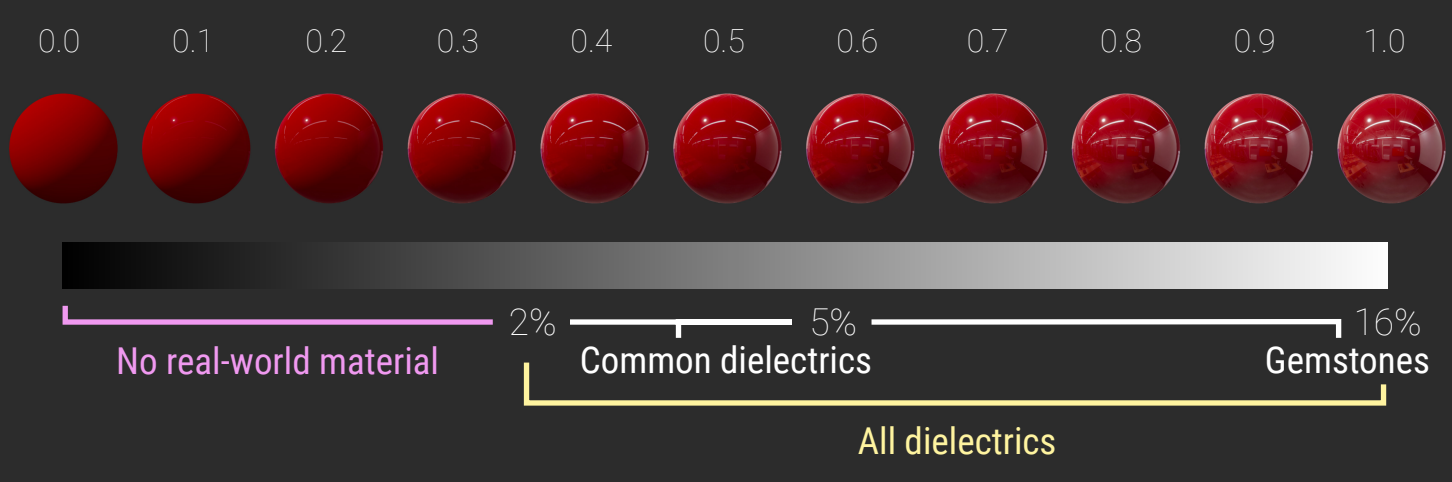
ROUGHNESS/GRAYSCALE

Defines the perceived **smoothness** (0.0) or **roughness** (1.0).
It is sometimes called **glossiness**.



REFLECTANCE/GRAYSCALE

Specular intensity for **non-metals.** The default is **0.5**, or **4%** reflectance.

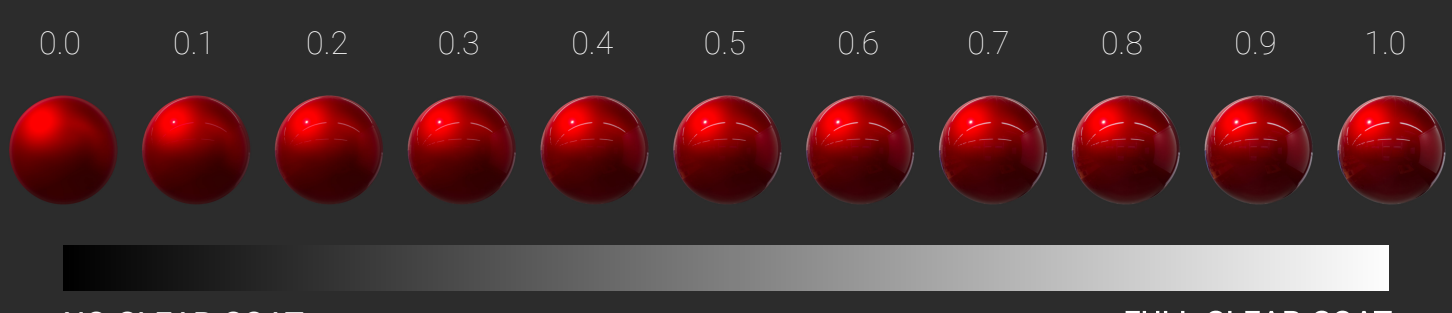


SAMPLES

Water	Glass	Liquids	Default	Others	Ruby	Diamond	Gemstones
90, 90, 90	119, 119, 119		127, 127, 127		180, 180, 180	255, 255, 255	
2%	3.5%	2% to 4%	4%	2% to 5%	8%	16%	5% to 16%

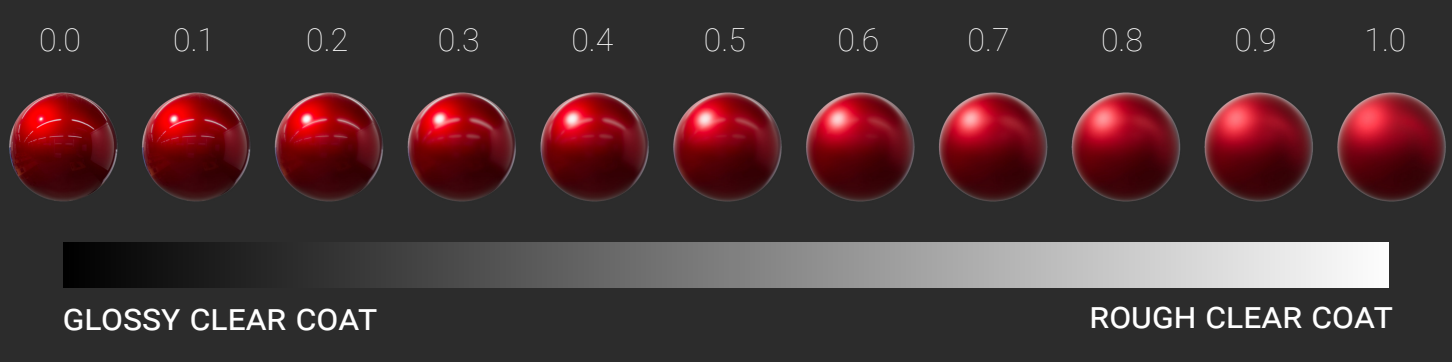
CLEAR COAT/GRAYSCALE

Strength of the clear coat layer on top of a base **dielectric** or **conductor** layer.
The clear coat layer will commonly be set to **0.0** or **1.0**.
This layer has a fixed index of refraction of 1.5.



CLEAR COAT ROUGHNESS/GRAYSCALE

Defines the perceived **smoothness** (0.0) or **roughness** (1.0) of the clear coat layer.
It is sometimes called **glossiness**.
This may affect the roughness of the base layer.



ANISOTROPY/GRAYSCALE

Defines whether the material appearance is **directionally dependent**, that is **isotropic** (0.0) or **anisotropic** (1.0). Brushed metals are **anisotropic**.
Values can be **negative** to change the orientation of the specular reflections.