The Appearance category controls how the particles are supposed to look when rendered.

The following options are available under the Appearance category:

- Blending
- Lighting
- Material
- Soft Intersect
- Texture Tiling
- Visibility

Blending

This feature allows the semi-transparent particles to blend with the scene.

Properties	Description
Blend Mode	The following options are available in the **Blend Mode:** - **Opaque:** Disables blending completely. - **Alpha:** Enables regular alpha blending using the alpha channel from the albedo texture. - **Additive:** Accumulates particles additively. - **Multiplicative:** Accumulates particles with multiplication.

Lighting

Wavicle particles are fully integrated with CRYENGINE's scene lighting. This feature provides the ability to control how particles interact with scene illumination. Wavicle rendering is an approximate of Physically Based Rendering (PBR), and all parameters will be in physical terms.

Properties	Description
Diffuse	The fraction of light that is reflected diffusely from the particle surface.This is a pure fraction from 0 to 1, as opposed to a percentage.
Back Light	Specifies the amount of light that can go through the particle to simulate basic scattering. With a value of 0 a particle behaves as a complete solid; the particles will have full brightness towards the light source and will be completely dark in the opposite direction. With a value of 1, a particle becomes isotropic and the particles will reflect diffused light equally in all directions. Fully isotropic particles might look dimmer than the solid or scattering particles, this is due to the laws of conservation of energy.
Emissive (kcd/m2)	Specifies the amount of light that a particle can emit. This value is measured in kcd/m^2 (kilo-candela per square meter) or knits (kilo-nits). This setting only affects apparent brightness on the surface and does not actually cast light onto the scene. This feature can be paired with **Light** for the full effect.
Curvature	Enables the surface of a particle to be considered as a sphere, even though a particle tends to be flat in shape. This allows us to add a significant amount of depth and volume to a particle effect. When the value is set to 0, particles that are illuminated and will be considered as totally flat. When the value is set to 1, particles that are illuminated will be considered as perfect spheres. Curvature is achieved by bending the normals of each vertex of the particle.
Environment Lighting	Enables illumination from environment probes for a greater consistency with other objects in the scene.
Receive Shadows	Enables a particle to receive shadow from the sun. It is recommended not to enable this option unless strictly necessary, since it requires a significant amount of processing time in the renderer.
Affected by Fog	Specifies whether a particle should be affected by environmental fog.
Volume Fog	Renders the effects as a fog volume. > ⊘ This option is currently non-functional but will be fixed in a future release.

Material

This feature allows you to set up material particles that will be used in rendering an effect. You can either provide a simple texture or you can use a CRYENGINE material.

Properties	Description

Material	Lets you use a CRYENGINE material to render this particle. This option overrides texture.
Texture	Provides a single albedo texture to the particle if no Material is assigned.

Soft Intersect

This feature enables soft intersection of particles against a scene. Even though it can cost additional fill-rate, it prevents hard-edge intersections against the scene.

Properties	Description
Softness	Determines how soft or hard particle intersections are against the scene. Softness also depends on the particle size.

Texture Tiling

This feature allows you to split particle texture coordinates into multiple tiles, and displays only one tile every time. This enables you to add variation or animations to a particle.

Properties	Description
TilesX, TilesY	Lets you specify the number of tiles that a texture can be split into (on each dimension).
Tile Count	Lets you specify the total number of valid tiles for this component (may be less than TilesX * TilesY). If no animation parameters are specified, then it uses the number of variant tiles for individual particles.
First Tile	Lets you specify the first valid tile index for this component.
Variant Mode	Allows you to choose the following options: • *Random*: Selects a random tile for each particle. • *Ordered*: Assigns the tiles in spawn order, looping.
Animation	Allows you to use texture tiles as animation.
Frame Count	Enables the number of consecutive tiles to be used for the animation. It is possible to use texture animation along with the texture variants. Multiple variants of an animation can be placed in a tiled texture, each animation consisting of consecutive tiles of the same frame count. In this case *Frame Count* is the frame count of each animation and *Tile Count* = number of variants * frame count which is the total number of tiles in the texture.
Frame Rate	Lets you specify the speed of an animation in frames per second. If the value is set to 0 it plays one animation cycle during the particle's lifetime.
Cycle Mode	Allows you to choose the following options: • *Once:* Allows the animation to be played for a single cycle then stops. • *Loop:* Allows the animation to be played in a continuous loop. Requires *Frame Rate > 0.* • *Mirror:* Allows the animation to be played until the end and then reverses the animation cycle back to the starting point (continuously). Requires *Frame Rate > 0.*
Frame Blending	Enables blending between frames for smoother animation. Slightly more expensive, since it samples the texture twice and blends the frames together.

Visibility

This feature allows you to customize aspects, such as when and how the effects will be rendered.

Properties	Description
Max Screen Size	Sets the maximum screen size at which a particle will be rendered (For example, the value 1 corresponds to a size that fills the entire screen.) This option overrides the CVar *e_ParticlesMaxDrawScreen*. If both values are >=2 then no screen size limit is enforced.
Min Camera Distance	Sets the minimum distance at which the particles are drawn. **Max Screen Size** is a better way to set this, as it limits the rendered size consistently with different particle sizes and camera FOVs.
Max Camera Distance	If the value is set >0, then sets the maximum distance at which the particles are drawn. **View Distance Multiple** can be a better option while using different resolutions, as it enforces a minimum rendered size consistently with different screen resolutions.

View Distance Multiple	Adjusts the maximum distance at which the effect is rendered. The default view distance for each effect is determined automatically from its maximum particle size, screen resolution and CVar *e_ParticlesMinDrawPixels*. When you need to fade out an effect closer than normal, then set **View Distance Multiple** <1.
Indoor Visibility	Specifies if particles should be visible indoors or outdoors: • **Indoor Only:** Particles will only be visible indoors. • **Outdoors Only:** Particles will only be visible outdoors. • **Both:** Particles will be visible both indoors and outdoors.
Water Visibility	Specifies if particles should be visible above or underwater: • **Above Water Only:** Particles will only be visible when they are above water. • **Below Water Only:** Particles will only be visible when they are below water. • **Both:** Particles will be visible above and below water.
Draw Near	Renders effect in a special near (1st-person) Viewport.
Draw On Top	Disables depth testing.

Since GPU and CPU particles share the same rendering pipeline, features in the **Appearance** category are shared and supported by both.