How to set up the lava shader:

The following paragraph presents the steps necessary to make the lava shader work in your project. Visit https://docs.project-gamedev.com/lava-shader/setup.html for image-aided instructions.

The lava shader is, in principle, just a normal URP lit shader. However, it has been designed to work with Unity's 2D Sprite Shape package, and should be applied to sprite shapes, and not regular sprites.

In order to use the lava shader, create a new sprite shape, and assign the shader to its material. Alternatively, use the sprite shape provided in the demo scene, or create your own sprite shape using the sprite shape profile provided in the package under **Lava Shader/Sprite Shape Profiles.**

Shader options:

Main Texture:

The main (albedo/color) texture used by the shader.

Albedo:

An additional color multiplied with the one already present in the albedo texture. Use this to further customize the look of your sprite.

Alpha Cutoff:

This is a threshold value – all parts of the texture whose alpha-value is less than the alpha cutoff will not be rendered.

Metallic Map:

The metallic map is a black-and-white texture that determines the surface type of the object. It is used to make certain parts of the sprite reflect light like a metal would (metallic), and others like sand would (smooth).

Metallic:

This value determines how "metallic" the surface should be, i.e. whether it should reflect light like a metal or a wet surface, or should absorb it like sand or another rough, non-metallic surface.

Normal Map:

The normal map is used to simulate a 3D-surface by containing information on how the light should be reflected by the surface.

Normal Strength:

This value is multiplied with the normal map and is used to make the effect stronger or weaker. A negative value will mirror the 3D-effect (i.e. protruding surfaces will now be concave, and vice versa).

Emission Map Primary:

A black-and-white map that determines which parts of the sprite will emit light. The white pixels of the texture are areas where the emission will have an effect, and the black pixels are the areas with no emission.

Primary Emission Color:

The emission color for the primary emission. As it is an HDR color, an RGB-value as well as an intensity can be specified.

Primary Emission Extra Intensity:

Since the default HDR color has a limited intensity (-10 to 10), this shader offers an additional intensity option that allows you to make your emission even stronger.

Emission Map Secondary:

An additional emission map that allows you to make different areas emit different light sources with different intensities.

Secondary Emission Color:

The emission color for the secondary emission. Has the same properties as the primary emission color option.

Secondary Emission Extra Intensity:

The additional intensity applied to the secondary emission. Has the same properties as the primary emission color option.

Lava Movement Speed:

The movement speed of the lava's surface. Set to 0 for no visible change in the texture (static lava). Negative values reverse the movement direction.

Lava Vertex Distortion Strength:

The strength of the lava's distortion ("wave"). Set to 0 for no lava movement (static lava). Negative values reverse the direction of the "wave". Keep in mind that high distortion values should only be used with high-fidelity sprite shapes, i.e. sprite shapes with much detail/many points.

Ambient Occlusion:

The regular ambient occlusion from the URP standard lit shader.

Congratulations! You are now ready to use the shader!
In case you experience any problems with the shader, can't manage to set it up properly, or would simply like to propose an improvement, don't hesitate to contact us at **contact@project-gamedev.com**, or fill out the form at **https://project-gamedev.com/contact.html**.
Best of luck with your game development journey!