

REAL FOAM SHADER

INTRODUCTION.

This documentation should help you understand this material to render foam objects quickly and easily.

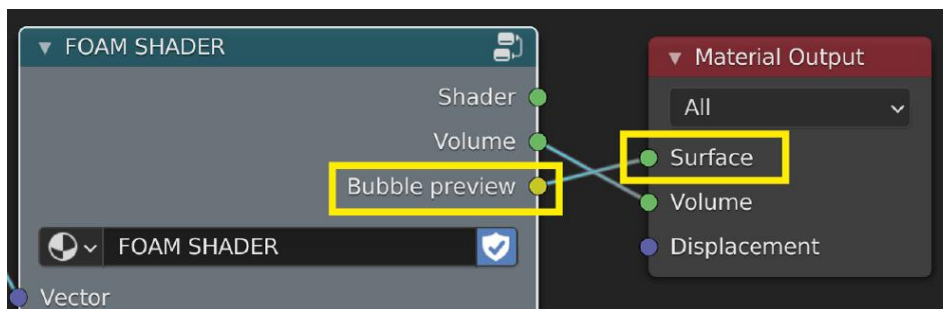
Please note that "Real Foam" is in active development! As such, certain features are still in the works and are subject to change. More detailed documentation and tutorials are also being worked on, meanwhile, several examples are included showing the main features.

To get started, open your own project, use **File> Append**, and choose the **"Real Foam file"**. Add **"Real Foam Shader"** in **"Node Tree"**. The Node Group is now usable in Node Editor – **Add > Group**. Connect the shader and volume sockets to the surface and volume output. Finally, connect the mapping node and the texture coordinate.

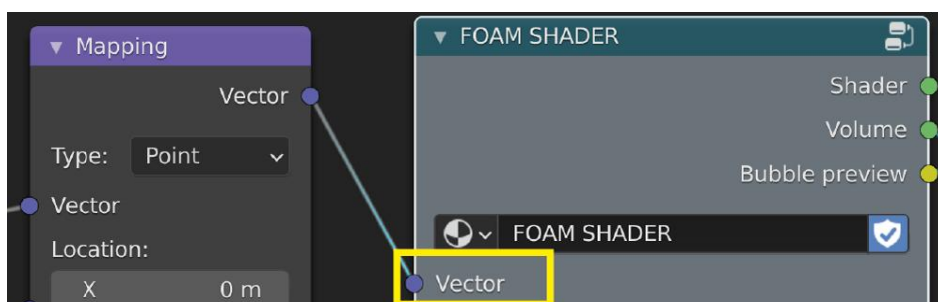
NODE FEATURES.

Sockets.

- **Bubble Preview** (Yellow): Enables a preview of a bubble pattern. Connect this input to the output of Surface. (Green)



- **Vector** (Dark blue): Connect the Mapping node to this output to apply translation, rotation, and scaling.



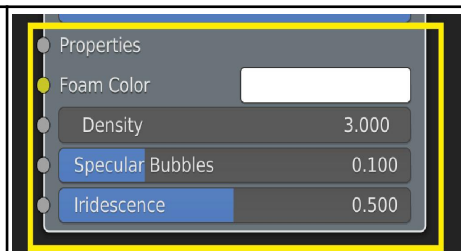
Textures.

- **Bubble Group I, II, III, IV:** Allows you to generate four different texture patterns, combine them and obtain a custom texture configuration.
 - ❑ **Scale:** Modifies the proportion of the texture
 - ❑ **Amount:** Sets a value in the range of 0 to 1 to select the amount of bubbles.
 - ❑ **Randomness:** Sets a value in the range of 0 to 1 to randomize the position of the bubbles.
- * Note: in most cases a Randomness value of 1 is preferable.*



Properties.

- **Foam Color:** Sets a color for the foam.
- **Density:** Defines the density within the limits of the mesh.
- **Specular Bubbles:** Specifies the reflectivity of the bubbles.
- **Iridescence:** Generates a vivid color effect on the surface of the bubbles * As in the case of soap suds

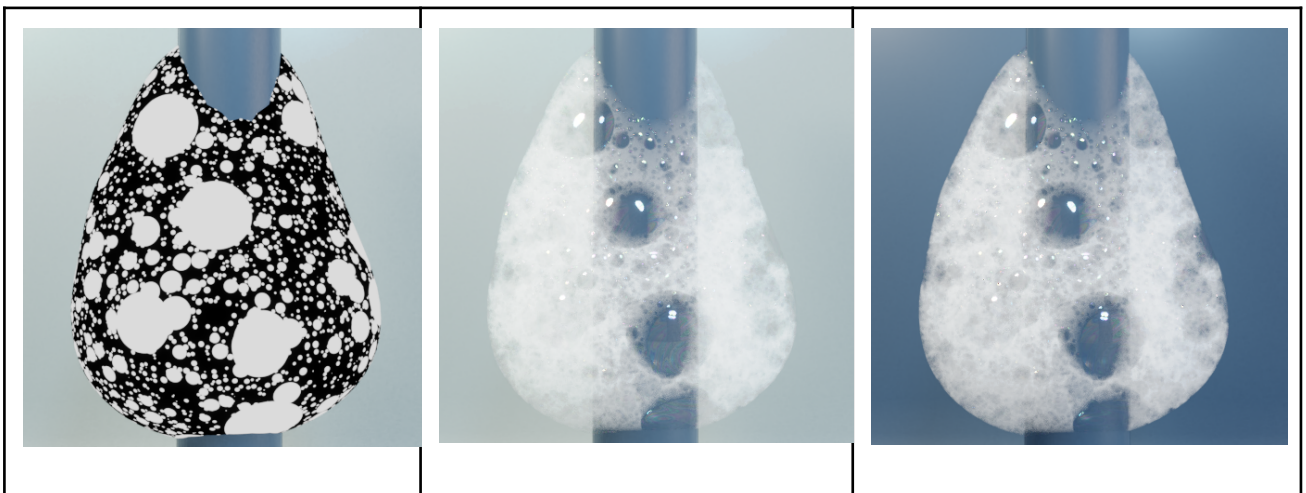


CONSIDERATIONS:

1. Foam Rendering

- ❑ **The type of foam** and the necessary values to apply will depend on the **volume of the object** on which you apply the material, the **tone of the surface** on which it is and the **lighting of the scene**, as will be seen later.

Here it is normal to do a lot of testing and correct the values to get closer to the desired result!



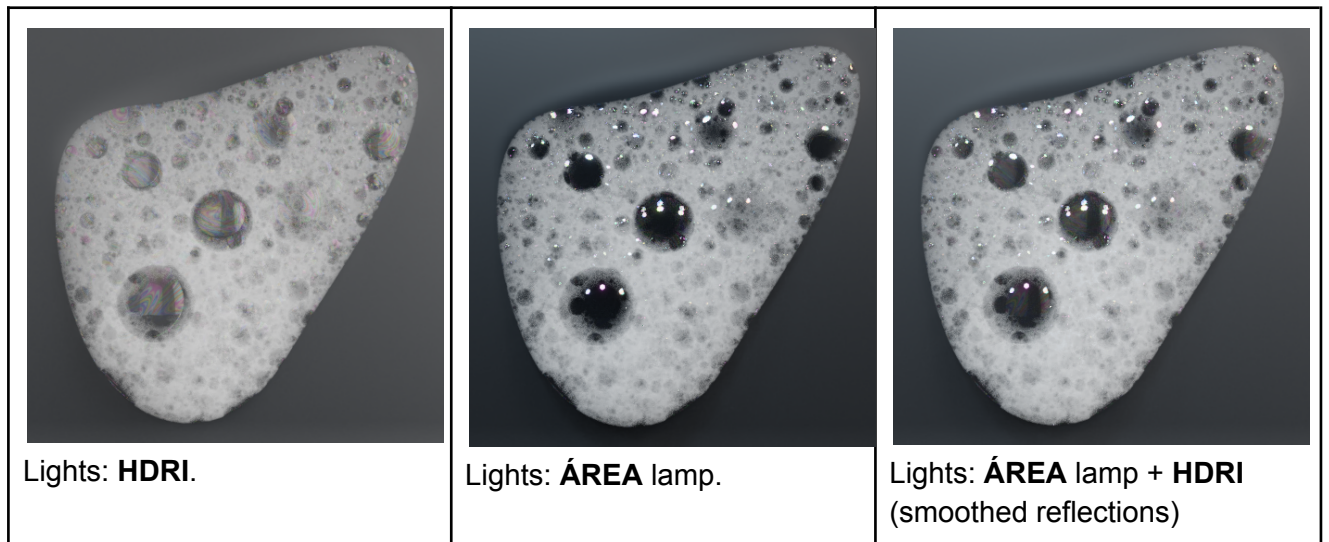
Foam bubbles closer to the column are more visible

2. Light Sources:

The size and type of light source influence the specular brightness of the bubbles and a realistic result.

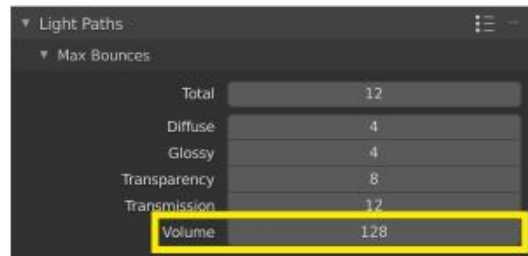
- ❑ It is convenient to use lamps of the **Area** type and assign a small size value.
- ❑ In the case of working with an **HDRI** in the scene, it is convenient to soften or eliminate **glossy reflections**.

**Note: look at the nodes within the “world” of the “included scene”*



3. Render Settings

Within the Render properties in the **Light Paths** panel, the default volume value is 0, an optimal value should be added between **64 - 128**.



Note this makes use of volume rendering, a GPU is recommended (gtx 1060 or higher should work fine)

4. Does it work on Eevee?

You can only get a correct result in **Cycles**.

Thank you for downloading this material! I hope to see how it is used.
If you have any problems with the shader, please contact me through the website.