

3Delight Layered

Overview

This material allows the composition of up to three different materials. It is also possible to use any two of the three layers for simpler compositions.

This material is designed so that looking at the layer stack from the backfacing side composites the layers from bottom to top. This allows, for example, the design of a bottle label that looks different from each side. In a nutshell, this shader can be used to:

- Create cutouts (e.g. leaf shape on a rectangular patch)
- BRDF mixes to create more complex materials.
- As a simple texture mixing node.

Parameters Description

Top Layer

Top Mask

The input top materials and its corresponding mask. A mask of [1,1,1] means total coverage and a mask of [0,0,0] means this layer is invisible.

Middle Layer

Middle Mask

Specifies the middle layer color and its corresponding mask.

Bottom Layer

Bottom Mask

Specifies the bottom layer color and its corresponding mask.

Technical Details

This material performs a 3-way composition which is defined as such:

$Final\ Color = Over(Top, Top_Mask, Over(Middle, Middle_Mask, Bottom))$

$Final\ Transparency = (1 - Top_Mask) * (1 - Middle_Mask) * (1 - Bottom_Mask)$

Top and Bottom Layer are reversed in the case of a backfacing surface. And the Over operation is defined as follows:

$Over(A, mask, B) := A * mask + B * (1 - mask);$