

# PNTD Winter Substances & Materials Docs

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PolyLabs | version 1.0 | [support@polylabs.co](mailto:support@polylabs.co)

## Package Overview

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This package contains Substance3D materials *and* Unity materials. Substances can be used in Unity by installing the **Substance3D for Unity** package on the Unity Asset Store.

This documentation is also a reference guide for modifying the Substances via script, with the parameters and their ranges.

Substances are procedural materials that allow developers to change the look and feel of materials at runtime, or even give them the ability to quickly customize materials before statically rendering the bitmaps.

At the time of writing this documentation, the plugin is currently only in beta, so please take caution installing it, and see the next section if you're experiencing issues using the .sbsar files inside Unity.

## Preset Files

All .sbsar files have presets built-in, though at the time of writing, the Substance3D for Unity plugin does not support reading these presets. As an alternative, a `presets` folder is included with each .sbsar file that contains the various presets that can be applied to the Substances.

## Helper Consts File

This package contains a helper C# file under the namespace `PolyLabs.PNTD.Winter`. The classes within the namespace correspond to the Substance names, and each const is a helper string for accessing a property of the Substance. To help you as you code, docstrings are provided detailing the property type, description, and value ranges where applicable.

## Baking Static Images from .sbsar Files

If you're having trouble utilizing Substances in Unity, or don't want to use the Substances in your project, you can still customize the materials and export bitmaps using Adobes free [Substance Player](#).

## Sbsar Materials Reference:

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### CrackedIce

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Consts: `PolyLabs.PNTD.Winter.CrackedIce`

Label	Identifier	Description	Type	Notes
				Default:

Cracks Scale	cracks_scale	The scale of the cracks in the ice.	Int	5 Min: 2 Max: 16 Clamped: True
Ice Cracks Slope Intensity	ice_cracks_slope_intensity	The intensity of the crack slope.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Ice Cracks Height Random	ice_cracks_height_random	Sets the intensity of the random height.	Float	Default: 0 Min: 0 Max: 1 Clamped: True
Ice Color	ice_color	The color preset of the ice.	Int	Enum Default: 1 Enum Values: 1: Default 2: Cloudy 3: Blue Ice
Enable Water	enable_water_switch	Enable or disable the water feature on the material. Disabling when not used has performance benefits.	Int	Boolean 1
Water Level	water_level	The amount of flooding on the material.	Float	Default: 0.07 Min: 0 Max: 1 Clamped: True
Water Darkness	water_darkness	The amount to darken the areas that are submerged on the material	Float	Default: 0.25 Min: 0 Max: 1 Clamped: True
Water Edges Wetness	water_edges_wetness	How we the edges where the material meets the water appears.	Float	Default: 0.6 Min: 0 Max: 1 Clamped: True
Water Edges				Default: 0.09 Min: 0

Wetness Distance	water_edges_wetness_distance	How far the edge wetness spreads on the material.	Float	Max: 1 Clamped: True
Enable Snow	enable_snow_switch	Enables the snow effect on the material. Has performance benefits when set to off if it is not needed.	Int	Boolean 1
Snow Coloring	snow_coloring	The main color of the snow.	Int	Enum Default: 1 Enum Values: 1: Default 2: White 3: Blued
Snow Dunes Amount	snow_dunes_amount	The size and scale of the snow dunes. Dunes are intended to give macro-level height information to the material. Not to be confused with "Snow Waves" which are for micro-level details.	Int	Default: 3 Min: 1 Max: 16 Clamped: True
Snow Waves Intensity	snow_waves_intensity	The intensity of the micro-level snow waves. When using higher intensities, prefer to set the Dune Height Position $\geq 0.75$ to avoid "bottoming out" on the height detail.	Float	Default: 0.46 Min: 0 Max: 1 Clamped: True
Snow Waves Softness	snow_waves_softness	The softness of the snow waves. Determines how crisp or dull the peaks of the waves appear.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Snow Height Offset	snow_height_offset	The offset for how to balance the snow with the main material. This can be seen as a "master control" for the height mixing. Lower than 0.5 will lessen the default height, while greater than 0.5 will increase the default height.	Float	Default: 0.33 Min: 0 Max: 1 Clamped: True
Snow Height Mixing Contrast	snow_height_mixing_contrast	Controls the amount of fading should occur between the snow and the main material. Higher values give a more crisp cutoff between material and snow.	Float	Default: 0.9 Min: 0 Max: 1 Clamped: True
Snow Cover Direction	snow_cover_direction	Whether the snow covers the top areas first or the bottom.	Int	Boolean 1
Invert		Inverts the normal map direction for compatability with OpenGL		Boolean

Normal Map	invert_normal_map	and DirectX.	Int	1
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## FreshSnow

Consts: `PolyLabs.PNTD.Winter.FreshSnow`

Label	Identifier	Description	Type	Notes
Snow Color	snow_color	The main color of the snow	Int	Enum Default: 1 Enum Values: 1: Default 2: White 3: Blued
Snow Pattern Zoom	snow_pattern_zoom	The zoom of the snow pattern.	Int	Default: 9 Min: 1 Max: 16 Clamped: True
Snow Softness	snow_softness	The softness of the snow waves	Float	Default: 8 Min: 0 Max: 16 Clamped: False
Invert Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1

## Ice

Consts: `PolyLabs.PNTD.Winter.Ice`

Label	Identifier	Description	Type	Notes
Ice Color	ice_color	The color preset of the ice.	Int	Enum Default: 1 Enum Values: 1: Default 2: Cloudy 3: Blue Ice
Roughness	roughness_position	The roughness value of the ice.	Float	Default: 0.57 Min: 0 Max: 1 Clamped: True
Height Range	height_range	The height of the ice waves.	Float	Default: 0.75 Min: 0 Max: 1 Clamped: True
Invert Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1

## IceCrystals

Consts: `PolyLabs.PNTD.Winter.IceCrystals`

Label	Identifier	Description	Type	Notes
Ice Pattern Amount	ice_pattern_amount	The number of patterns on the x and y axis.	Int	Default: 12 Min: 1 Max: 32 Clamped: True
Ice Color	ice_color	The color preset of the ice.	Int	Enum Default: 1 Enum Values: 1: Default 2: Cloudy 3: Blue Ice

				4: custom gradient
Enable Snow	enable_snow_switch	Enables the snow effect on the material. Has performance benefits when set to off if it is not needed.	Int	Boolean 1
Snow Coloring	snow_coloring	The main color of the snow.	Int	Enum Default: 2 Enum Values: 1: Default 2: White 3: Blued
Snow Normal Intensity	snow_normal_intensity	The intensity of the normal map in respect to the snow covering.	Float	Default: 5 Min: 0 Max: 10 Clamped: True
Snow Roughness	snow_roughness	The roughness of the snow overlay. Lower values give an increasingly icy effect.	Float	Default: 0.7 Min: 0 Max: 1 Clamped: True
Snow Dunes Amount	snow_dunes_amount	The size and scale of the snow dunes. Dunes are intended to give macro-level height information to the material. Not to be confused with "Snow Waves" which are for micro-level details.	Int	Default: 6 Min: 1 Max: 16 Clamped: True
Snow Waves Intensity	snow_waves_intensity	The intensity of the micro-level snow waves. When using higher intensities, prefer to set the Dune Height Position $\geq 0.75$ to avoid "bottoming out" on the height detail.	Float	Default: 0.3 Min: 0 Max: 1 Clamped: True
Snow Waves Rotation	snow_waves_rotation	The rotation of the snow waves. Maps 0-360 degrees from 0 to 1.	Float	Default: 0.25 Min: 0 Max: 1 Clamped: False
Snow Waves Softness	snow_waves_softness	The softness of the snow waves. Determines how crisp or dull the peaks of the waves appear.	Float	Default: 0.2 Min: 0 Max: 1 Clamped: True

Snow Height Offset	snow_height_offset	The offset for how to balance the snow with the main material. This can be seen as a "master control" for the height mixing. Lower than 0.5 will lessen the default height, while greater than 0.5 will increase the default height.	Float	Default: 0.19 Min: 0 Max: 1 Clamped: True
Snow Height Mixing Contrast	snow_height_mixing_contrast	Controls the amount of fading should occur between the snow and the main material. Higher values give a more crisp cutoff between material and snow.	Float	Default: 0.63 Min: 0 Max: 1 Clamped: True
Snow Cover Direction	snow_cover_direction	Whether the snow covers the top areas first or the bottom.	Int	Boolean 1
Invert Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1

## IcePiles

Consts: `PolyLabs.PNTD.Winter.IcePiles`

Label	Identifier	Description	Type	Notes
Ice Pattern Zoom	ice_pattern_zoom	The zoom of the ice pattern.	Int	Default: 8 Min: 0 Max: 16 Clamped: True
Ice Pattern Rotation Random	ice_pattern_rotation_random	The randomness of the rotation of the patterns.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Ice Color	ice_color	The color preset of the ice.	Int	Enum Default: 1 Enum Values: 1: Default 2: Cloudy 3: Blue Ice
Enable Snow	enable_snow_switch	Enables the snow effect on the material. Has performance benefits when set to off if it is not needed.	Int	Boolean 1

Snow Coloring	snow_coloring	The main color of the snow.	Int	Enum Default: 2 Enum Values: 1: Default 2: White 3: Blued
Snow Normal Intensity	snow_normal_intensity	The intensity of the normal map in respect to the snow covering.	Float	Default: 5 Min: 0 Max: 10 Clamped: True
Snow Roughness	snow_roughness	The roughness of the snow overlay. Lower values give an increasingly icy effect.	Float	Default: 0.7 Min: 0 Max: 1 Clamped: True
Snow Dunes Amount	snow_dunes_amount	The size and scale of the snow dunes. Dunes are intended to give macro-level height information to the material. Not to be confused with "Snow Waves" which are for micro-level details.	Int	Default: 6 Min: 1 Max: 16 Clamped: True
Snow Dunes Height Range	snow_dunes_height_range	The range of the snow dunes. Higher values means higher peaks and lower valleys, whereas lower values means the snow will be more evenly-distributed.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Snow Waves Intensity	snow_waves_intensity	The intensity of the micro-level snow waves. When using higher intensities, prefer to set the Dune Height Position $\geq 0.75$ to avoid "bottoming out" on the height detail.	Float	Default: 0.3 Min: 0 Max: 1 Clamped: True
Snow Waves Rotation	snow_waves_rotation	The rotation of the snow waves. Maps 0-360 degrees from 0 to 1.	Float	Default: 0.25 Min: 0 Max: 1 Clamped: False
Snow Waves Softness	snow_waves_softness	The softness of the snow waves. Determines how crisp or dull the peaks of the waves appear.	Float	Default: 0.2 Min: 0 Max: 1 Clamped: True

				True
Snow Height Offset	snow_height_offset	The offset for how to balance the snow with the main material. This can be seen as a "master control" for the height mixing. Lower than 0.5 will lessen the default height, while greater than 0.5 will increase the default height.	Float	Default: 0.19 Min: 0 Max: 1 Clamped: True
Snow Height Mixing Contrast	snow_height_mixing_contrast	Controls the amount of fading should occur between the snow and the main material. Higher values give a more crisp cutoff between material and snow.	Float	Default: 0.63 Min: 0 Max: 1 Clamped: True
Snow Cover Direction	snow_cover_direction	Whether the snow covers the top areas first or the bottom.	Int	Boolean 1
Snow Waves X Amount	snow_waves_x_amount	The number of snow waves on the x-axis.	Int	Default: 16 Min: 1 Max: 32 Clamped: True
Snow Waves Y Amount	snow_waves_y_amount	The number of snow waves on the y-axis.	Int	Default: 4 Min: 1 Max: 16 Clamped: True
Invert Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1

## IceShelves

Consts: `PolyLabs.PNTD.Winter.IceShelves`

Label	Identifier	Description	Type	Notes
Ice Pattern X Amount	ice_pattern_x_amount	The amount of patterns on the x axis.	Int	Default: 8 Min: 1 Max: 16 Clamped: True
Ice Pattern Y Amount	ice_pattern_y_amount	The amount of patterns on the y axis.	Int	Default: 6 Min: 1 Max: 16 Clamped: True

				True
Ice Color	ice_color	The color preset of the ice.	Int	Enum Default: 1 Enum Values: 1: Default 2: Cloudy 3: Blue Ice
Enable Snow	enable_snow_switch	Enables the snow effect on the material. Has performance benefits when set to off if it is not needed.	Int	Boolean 1
Snow Coloring	snow_coloring	The main color of the snow.	Int	Enum Default: 2 Enum Values: 1: Default 2: White 3: Blued
Snow Normal Intensity	snow_normal_intensity	The intensity of the normal map in respect to the snow covering.	Float	Default: 5 Min: 0 Max: 10 Clamped: True
Snow Roughness	snow_roughness	The roughness of the snow overlay. Lower values give an increasingly icy effect.	Float	Default: 0.7 Min: 0 Max: 1 Clamped: True
Snow Dunes Amount	snow_dunes_amount	The size and scale of the snow dunes. Dunes are intended to give macro-level height information to the material. Not to be confused with "Snow Waves" which are for micro-level details.	Int	Default: 6 Min: 1 Max: 16 Clamped: True
Snow Dunes Height Range	snow_dunes_height_range	The range of the snow dunes. Higher values means higher peaks and lower valleys, whereas lower values means the snow will be more evenly-distributed.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Snow Dunes Height Position	snow_dunes_height_position	The position of the snow dune height. Higher values will mean more of the material is flooded with snow. When using a high Snow Waves intensity, prefer to have this value $\geq 0.75$ to prevent "bottoming out"	Float	Default: 0.75 Min: 0 Max: 1 Clamped:

Property	Parameter	Description	Type	Default Min Max Clamped
				True
Snow Dunes Height Contrast	snow_dunes_height_contrast	The contrast of the snow dunes. Moves values >0.5 up, and values <0.5 down. Gives an appearance of more scattered snow than	Float	Default: 0 Min: 0 Max: 1 Clamped: True
Snow Waves Intensity	snow_waves_intensity	The intensity of the micro-level snow waves. When using higher intensities, prefer to set the Dune Height Position $\geq 0.75$ to avoid "bottoming out" on the height detail.	Float	Default: 0.3 Min: 0 Max: 1 Clamped: True
Snow Waves Rotation	snow_waves_rotation	The rotation of the snow waves. Maps 0-360 degrees from 0 to 1.	Float	Default: 0 Min: 0 Max: 1 Clamped: False
Snow Waves Softness	snow_waves_softness	The softness of the snow waves. Determines how crisp or dull the peaks of the waves appear.	Float	Default: 0.2 Min: 0 Max: 1 Clamped: True
Snow Waves X Amount	snow_waves_x_amount	The number of snow waves on the x-axis.	Int	Default: 16 Min: 1 Max: 32 Clamped: True
Snow Waves Y Amount	snow_waves_y_amount	The number of snow waves on the y-axis.	Int	Default: 4 Min: 1 Max: 16 Clamped: True
Snow Height Offset	snow_height_offset	The offset for how to balance the snow with the main material. This can be seen as a "master control" for the height mixing. Lower than 0.5 will lessen the default height, while greater than 0.5 will increase the default height.	Float	Default: 0.39 Min: 0 Max: 1 Clamped: True
Snow Height Mixing Contrast	snow_height_mixing_contrast	Controls the amount of fading should occur between the snow and the main material. Higher values give a more crisp cutoff between material and snow.	Float	Default: 0.87 Min: 0 Max: 1 Clamped: True

Snow Cover Direction	snow_cover_direction	Whether the snow covers the top areas first or the bottom.	Int	Boolean 1
Invert Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1

## IceWall

Consts: `PolyLabs.PNTD.Winter.IceWall`

Label	Identifier	Description	Type	Notes
Ice Pattern Zoom	ice_pattern_zoom	The number of patterns on the x and y axis.	Int	Default: 6 Min: 1 Max: 16 Clamped: True
Ice Color	ice_color	The color preset of the ice.	Int	Enum Default: 1 Enum Values: 1: Default 2: Cloudy 3: Blue Ice
Enable Snow	enable_snow_switch	Enables the snow effect on the material. Has performance benefits when set to off if it is not needed.	Int	Boolean 1
Snow Coloring	snow_coloring	The main color of the snow.	Int	Enum Default: 2 Enum Values: 1: Default 2: White 3: Blued
Snow Normal Intensity	snow_normal_intensity	The intensity of the normal map in respect to the snow covering.	Float	Default: 5.61 Min: 0 Max: 10 Clamped: True
Snow	snow_roughness	The roughness of the snow overlav. Lower values give an	Float	Default: 0.44  Min: 0

Roughness	snow_roughness	increasingly icy effect.	Float	Max: 1 Clamped: True
Snow Dunes Amount	snow_dunes_amount	The size and scale of the snow dunes. Dunes are intended to give macro-level height information to the material. Not to be confused with "Snow Waves" which are for micro-level details.	Int	Default: 10 Min: 1 Max: 16 Clamped: True
Snow Dunes Height Range	snow_dunes_height_range	The range of the snow dunes. Higher values means higher peaks and lower valleys, whereas lower values means the snow will be more evenly-distributed.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Snow Dunes Height Position	snow_dunes_height_position	The position of the snow dune height. Higher values will mean more of the material is flooded with snow. When using a high Snow Waves intensity, prefer to have this value $\geq 0.75$ to prevent "bottoming out".	Float	Default: 0.54 Min: 0 Max: 1 Clamped: True
Snow Dunes Height Contrast	snow_dunes_height_contrast	The contrast of the snow dunes. Moves values $>0.5$ up, and values $<0.5$ down. Gives an appearance of more scattered snow than	Float	Default: 0.27 Min: 0 Max: 1 Clamped: True
Snow Waves Intensity	snow_waves_intensity	The intensity of the micro-level snow waves. When using higher intensities, prefer to set the Dune Height Position $\geq 0.75$ to avoid "bottoming out" on the height detail.	Float	Default: 0.24 Min: 0 Max: 1 Clamped: True
Snow Waves Rotation	snow_waves_rotation	The rotation of the snow waves. Maps 0-360 degrees from 0 to 1.	Float	Default: 0.374444 Min: 0 Max: 1 Clamped: False
Snow Waves Softness	snow_waves_softness	The softness of the snow waves. Determines how crisp or dull the peaks of the waves appear.	Float	Default: 0.18 Min: 0 Max: 1 Clamped: True
Snow Waves X Amount	snow_waves_x_amount	The number of snow waves on the x-axis.	Int	Default: 17 Min: 1 Max: 32

				Clamped: True
Snow Waves Y Amount	snow_waves_y_amount	The number of snow waves on the y-axis.	Int	Default: 4 Min: 1 Max: 16 Clamped: True
Snow Height Offset	snow_height_offset	The offset for how to balance the snow with the main material. This can be seen as a "master control" for the height mixing. Lower than 0.5 will lessen the default height, while greater than 0.5 will increase the default height.	Float	Default: 0.15 Min: 0 Max: 1 Clamped: True
Snow Height Mixing Contrast	snow_height_mixing_contrast	Controls the amount of fading should occur between the snow and the main material. Higher values give a more crisp cutoff between material and snow.	Float	Default: 0.75 Min: 0 Max: 1 Clamped: True
Snow Cover Direction	snow_cover_direction	Whether the snow covers the top areas first or the bottom.	Int	Boolean 1
Invert Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1

## JaggedIcyCliff

Consts: `PolyLabs.PNTD.Winter.JaggedIcyCliff`

Label	Identifier	Description	Type	Notes
Ice Pattern X Amount	ice_pattern_x_amount	The amount of patterns on the x axis.	Int	Default: 8 Min: 1 Max: 16 Clamped: True
Ice Pattern Y Amount	ice_pattern_y_amount	The amount of patterns on the y axis.	Int	Default: 5 Min: 1 Max: 16 Clamped: True
				Enum Default: 2  Enum

Ice Color	ice_color	The color preset of the ice.	Int	Values: 1: Default 2: Cloudy 3: Blue Ice
Enable Snow	enable_snow_switch	Enables the snow effect on the material. Has performance benefits when set to off if it is not needed.	Int	Boolean 1
Snow Coloring	snow_coloring	The main color of the snow.	Int	Enum Default: 2 Enum Values: 1: Default 2: White 3: Blued
Snow Normal Intensity	snow_normal_intensity	The intensity of the normal map in respect to the snow covering.	Float	Default: 5.61 Min: 0 Max: 10 Clamped: True
Snow Roughness	snow_roughness	The roughness of the snow overlay. Lower values give an increasingly icy effect.	Float	Default: 0.93 Min: 0 Max: 1 Clamped: True
Snow Dunes Amount	snow_dunes_amount	The size and scale of the snow dunes. Dunes are intended to give macro-level height information to the material. Not to be confused with "Snow Waves" which are for micro-level details.	Int	Default: 6 Min: 1 Max: 16 Clamped: True
Snow Dunes Height Range	snow_dunes_height_range	The range of the snow dunes. Higher values means higher peaks and lower valleys, whereas lower values means the snow will be more evenly-distributed.	Float	Default: 0.9 Min: 0 Max: 1 Clamped: True
Snow Dunes Height Position	snow_dunes_height_position	The position of the snow dune height. Higher values will mean more of the material is flooded with snow. When using a high Snow Waves intensity, prefer to have this value $\geq 0.75$ to prevent "bottoming out".	Float	Default: 0.75 Min: 0 Max: 1 Clamped: True
Snow Dunes		The contrast of the snow dunes. Moves values $>0.5$ up. and values		Default: 0 Min: 0

Height Contrast	snow_dunes_height_contrast	<0.5 down. Gives an appearance of more scattered snow than	Float	Max: 1 Clamped: True
Snow Waves Intensity	snow_waves_intensity	The intensity of the micro-level snow waves. When using higher intensities, prefer to set the Dune Height Position $\geq 0.75$ to avoid "bottoming out" on the height detail.	Float	Default: 0.24 Min: 0 Max: 1 Clamped: True
Snow Waves Rotation	snow_waves_rotation	The rotation of the snow waves. Maps 0-360 degrees from 0 to 1.	Float	Default: 0 Min: 0 Max: 1 Clamped: False
Snow Waves Softness	snow_waves_softness	The softness of the snow waves. Determines how crisp or dull the peaks of the waves appear.	Float	Default: 0.49 Min: 0 Max: 1 Clamped: True
Snow Waves X Amount	snow_waves_x_amount	The number of snow waves on the x-axis.	Int	Default: 9 Min: 1 Max: 32 Clamped: True
Snow Waves Y Amount	snow_waves_y_amount	The number of snow waves on the y-axis.	Int	Default: 4 Min: 1 Max: 16 Clamped: True
Snow Height Offset	snow_height_offset	The offset for how to balance the snow with the main material. This can be seen as a "master control" for the height mixing. Lower than 0.5 will lessen the default height, while greater than 0.5 will increase the default height.	Float	Default: 0.32 Min: 0 Max: 1 Clamped: True
Snow Height Mixing Contrast	snow_height_mixing_contrast	Controls the amount of fading should occur between the snow and the main material. Higher values give a more crisp cutoff between material and snow.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Snow Cover Direction	snow_cover_direction	Whether the snow covers the top areas first or the bottom.	Int	Boolean 1
Invert		Inverts the normal map direction for compatibility with OpenCL		Boolean

Normal Map	invert_normal_map	Inverts the normal map direction for compatibility with OpenGL and DirectX.	Int	Boolean 1
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## LayeredIcyCliff

Consts: `PolyLabs.PNTD.Winter.LayeredIcyCliff`

Label	Identifier	Description	Type	Notes
Ice Patterns X Amount	ice_patterns_x_amount	The amount of patterns on the x axis.	Int	Default: 5 Min: 1 Max: 16 Clamped: True
Ice Pattern Y Amount	ice_pattern_y_amount	The amount of patterns on the y axis.	Int	Default: 8 Min: 1 Max: 16 Clamped: True
Ice Color	ice_color	The color preset of the ice.	Int	Enum Default: 1 Enum Values: 1: Default 2: Cloudy 3: Blue Ice
Enable Snow	enable_snow_switch	Enables the snow effect on the material. Has performance benefits when set to off if it is not needed.	Int	Boolean 1
Snow Coloring	snow_coloring	The main color of the snow.	Int	Enum Default: 2 Enum Values: 1: Default 2: White 3: Blued
Snow Normal Intensity	snow_normal_intensity	The intensity of the normal map in respect to the snow covering.	Float	Default: 5.61 Min: 0 Max: 10 Clamped: True
				Default: 0.93

Snow Roughness	snow_roughness	The roughness of the snow overlay. Lower values give an increasingly icy effect.	Float	Min: 0 Max: 1 Clamped: True
Snow Dunes Amount	snow_dunes_amount	The size and scale of the snow dunes. Dunes are intended to give macro-level height information to the material. Not to be confused with "Snow Waves" which are for micro-level details.	Int	Default: 6 Min: 1 Max: 16 Clamped: True
Snow Dunes Height Range	snow_dunes_height_range	The range of the snow dunes. Higher values means higher peaks and lower valleys, whereas lower values means the snow will be more evenly-distributed.	Float	Default: 0.9 Min: 0 Max: 1 Clamped: True
Snow Dunes Height Position	snow_dunes_height_position	The position of the snow dune height. Higher values will mean more of the material is flooded with snow. When using a high Snow Waves intensity, prefer to have this value $\geq 0.75$ to prevent "bottoming out".	Float	Default: 0.75 Min: 0 Max: 1 Clamped: True
Snow Dunes Height Contrast	snow_dunes_height_contrast	The contrast of the snow dunes. Moves values $>0.5$ up, and values $<0.5$ down. Gives an appearance of more scattered snow than	Float	Default: 0 Min: 0 Max: 1 Clamped: True
Snow Waves Intensity	snow_waves_intensity	The intensity of the micro-level snow waves. When using higher intensities, prefer to set the Dune Height Position $\geq 0.75$ to avoid "bottoming out" on the height detail.	Float	Default: 0.24 Min: 0 Max: 1 Clamped: True
Snow Waves Rotation	snow_waves_rotation	The rotation of the snow waves. Maps 0-360 degrees from 0 to 1.	Float	Default: 0 Min: 0 Max: 1 Clamped: False
Snow Waves Softness	snow_waves_softness	The softness of the snow waves. Determines how crisp or dull the peaks of the waves appear.	Float	Default: 0.49 Min: 0 Max: 1 Clamped: True
Snow Waves X	snow_waves_x_amount	The number of snow waves on the x-axis.	Int	Default: 9 Min: 1 Max: 32

Amount				Clamped: True
Snow Waves Y Amount	snow_waves_y_amount	The number of snow waves on the y-axis.	Int	Default: 4 Min: 1 Max: 16 Clamped: True
Snow Height Offset	snow_height_offset	The offset for how to balance the snow with the main material. This can be seen as a "master control" for the height mixing. Lower than 0.5 will lessen the default height, while greater than 0.5 will increase the default height.	Float	Default: 0.41 Min: 0 Max: 1 Clamped: True
Snow Height Mixing Contrast	snow_height_mixing_contrast	Controls the amount of fading should occur between the snow and the main material. Higher values give a more crisp cutoff between material and snow.	Float	Default: 0.92 Min: 0 Max: 1 Clamped: True
Snow Cover Direction	snow_cover_direction	Whether the snow covers the top areas first or the bottom.	Int	Boolean 1
Invert Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1

## MuddySnow

Consts: `PolyLabs.PNTD.Winter.MuddySnow`

Label	Identifier	Description	Type	Notes
Mud Scale	mud_scale	The scale of the mud pattern	Int	Default: 8 Min: 1 Max: 16 Clamped: True
Dirt Color	dirt_color	The color preset of the dirt.	Int	Enum Default: 1 Enum Values: 1: Default 2: Darker 3: Sludgy 4: Dry

				5: Graveled
Dirt Pebbles Height	dirt_pebbles_height	The height of the dirt pebbles on the material. 0 will hide the pebbles.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Dirt Pebbles Zoom	dirt_pebbles_zoom	Amount of pebbles to show on the x and y axis.	Int	Default: 13 Min: 1 Max: 32 Clamped: False
Dirt Pebbles Scale	dirt_pebbles_scale	The size of the individual pebbles.	Float	Default: 0.55 Min: 0 Max: 3 Clamped: False
Enable Snow	enable_snow_switch	Enables the snow effect on the material. Has performance benefits when set to off if it is not needed.	Int	Boolean 1
Snow Coloring	snow_coloring	The main color of the snow.	Int	Enum Default: 1 Enum Values: 1: Default 2: White 3: Blued
Snow Normal Intensity	snow_normal_intensity	The intensity of the normal map in respect to the snow covering.	Float	Default: 5 Min: 0 Max: 10 Clamped: True
Snow Roughness	snow_roughness	The roughness of the snow overlay. Lower values give an increasingly icy effect.	Float	Default: 0.7 Min: 0 Max: 1 Clamped: True
Snow Dunes Amount	snow_dunes_amount	The size and scale of the snow dunes. Dunes are intended to give macro-level height information to the material. Not to be confused with "Snow Waves" which are for micro-level details.	Int	Default: 8 Min: 1 Max: 16 Clamped: True
				Default:

Snow Dunes Height Range	snow_dunes_height_range	The range of the snow dunes. Higher values means higher peaks and lower valleys, whereas lower values means the snow will be more evenly-distributed.	Float	0.66 Min: 0 Max: 1 Clamped: True
Snow Dunes Height Position	snow_dunes_height_position	The position of the snow dune height. Higher values will mean more of the material is flooded with snow. When using a high Snow Waves intensity, prefer to have this value $\geq 0.75$ to prevent "bottoming out".	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Snow Dunes Height Contrast	snow_dunes_height_contrast	The contrast of the snow dunes. Moves values $>0.5$ up, and values $<0.5$ down. Gives an appearance of more scattered snow than	Float	Default: 0 Min: 0 Max: 1 Clamped: True
Snow Waves Intensity	snow_waves_intensity	The intensity of the micro-level snow waves. When using higher intensities, prefer to set the Dune Height Position $\geq 0.75$ to avoid "bottoming out" on the height detail.	Float	Default: 0.3 Min: 0 Max: 1 Clamped: True
Snow Waves Rotation	snow_waves_rotation	The rotation of the snow waves. Maps 0-360 degrees from 0 to 1.	Float	Default: 0.25 Min: 0 Max: 1 Clamped: False
Snow Waves Softness	snow_waves_softness	The softness of the snow waves. Determines how crisp or dull the peaks of the waves appear.	Float	Default: 0.2 Min: 0 Max: 1 Clamped: True
Snow Waves X Amount	snow_waves_x_amount	The number of snow waves on the x-axis.	Int	Default: 16 Min: 1 Max: 32 Clamped: True
Snow Waves Y Amount	snow_waves_y_amount	The number of snow waves on the y-axis.	Int	Default: 4 Min: 1 Max: 16 Clamped: True
Snow	snow height offset	The offset for how to balance the snow with the main material.	Float	Default: 0.34

Height Offset		This can be seen as a "master control" for the height mixing. Lower than 0.5 will lessen the default height, while greater than 0.5 will increase the default height.		Min: 0 Max: 1 Clamped: True
Snow Height Mixing Contrast	snow_height_mixing_contrast	Controls the amount of fading should occur between the snow and the main material. Higher values give a more crisp cutoff between material and snow.	Float	Default: 0.37 Min: 0 Max: 1 Clamped: True
Snow Cover Direction	snow_cover_direction	Whether the snow covers the top areas first or the bottom.	Int	Boolean 1
Enable Water	enable_water_switch	Enable or disable the water feature on the material. Disabling when not used has performance benefits.	Int	Boolean 1
Water Level	water_level	The amount of flooding on the material.	Float	Default: 0.11 Min: 0 Max: 1 Clamped: True
Water Darkness	water_darkness	The amount to darken the areas that are submerged on the material	Float	Default: 0.14 Min: 0 Max: 1 Clamped: True
Water Edges Wetness	water_edges_wetness	How we the edges where the material meets the water appears.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Water Edges Wetness Distance	water_edges_wetness_distance	How far the edge wetness spreads on the material.	Float	Default: 0.3 Min: 0 Max: 1 Clamped: True
Invert Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1