PNTD Dunes Substances & Materials Docs

PolyLabs | version 1.0 | support@polylabs.co

Package Overview

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 Susbtances 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 Susbtances.

Helper Consts File

This package contains a helper C# file under the namespace `PolyLabs.PNTD.Dunes`. 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:

BasicDirt

Consts: `PolyLabs.PNTD.Dunes.BasicDirt`

Label	Identifier	Description	Type	Notes
				Enum

Dirt Color	dirt_color	The color preset of the dirt.	Int	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: 10 Min: 1 Max: 32 Clamped: False
Dirt Pebbles Scale	dirt_pebbles_scale	The size of the individual pebbles.	Float	Default: 1 Min: 0 Max: 3 Clamped: False
Normal Intensity	normal_intensity	The **Intensity** parameter modifies the intensity of the ormal map	Float	Default: 5 Min: 0 Max: 10 Clamped: False
Roughness Range	roughness_range		Float	Default: 0.11 Min: 0 Max: 1 Clamped: True
Roughness Position	roughness_position		Float	Default: 0.87 Min: 0 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 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: 3 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 >= 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 >= 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 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: 0.5 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 Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1

BeachSand

Consts: `PolyLabs.PNTD.Dunes.BeachSand`

Label	Identifier	Description	Type	Notes
Color Setting	color_setting	The color of the sand.	Int	Enum Default: 1 Enum Values: 1: Beach Sand 2: Desert Sand 3: Sahara 4: Red
Sand Waves Rotation	sand_waves_rotation	The rotation of the sand.	Float	Default: 45 Min: -360 Max: 360 Clamped: False
Invert Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1
Sand Roughness	sand_roughness	The roughness of the sand.	Float	Default: 0.8 Min: 0 Max: 1 Clamped: True

Clay

Consts: `PolyLabs.PNTD.Dunes.Clay`

Label	Identifier	Description	Type	Notes
Base Pattern Scale	base_pattern_scale	The scale of the base pattern of the clay.	Int	Default: 8 Min: 1 Max: 32 Clamped: False
Streak Pattern amount	streak_pattern_amount	Amount of streaks to show.	Int	Default: 4 Min: 1 Max: 16 Clamped: True
Dirt Pebbles Height	dirt_pebbles_height	The height of the dirt pebbles on the material. 0 will hide the pebbles.	Float	Default: 0.41 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: 9 Min: 1 Max: 32 Clamped: False
Dirt Pebbles Scale	dirt_pebbles_scale	The size of the individual pebbles.	Float	Default: 0.28 Min: 0 Max: 3 Clamped: False
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: 0.25 Min: 0 Max: 1 Clamped: True
Water Darkness	water_darkness	The amount to darken the areas that are submerged on the material	Float	Default: 0.22 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: 0.1 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: 0.1 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
Clay Roughness Range	clay_roughness_range	The range of the roughness grunge.	Float	Default: 0.62 Min: 0 Max: 1 Clamped: True
Clay Roughness Position	clay_roughness_position	The overall roughness of the clay.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True

CrackedDirt

Consts: `PolyLabs.PNTD.Dunes.CrackedDirt`

Label	Identifier	Description	Type	Notes
Cracks Scale	cracks_scale	The scale of the dirt cracks.	Int	Default: 8 Min: 1 Max: 16 Clamped: True
Cracks Slope Intensity	cracks_slope_intensity	The intensity of the cracks slope.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Cracks Height Random	cracks_height_random	Sets the intensity of the random height.	Float	Default: 0 Min: 0 Max: 1 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: 0.79 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: 5 Min: 1 Max: 32 Clamped: False
Dirt Pebbles Scale	dirt_pebbles_scale	The size of the individual pebbles.	Float	Default: 0.78 Min: 0 Max: 3 Clamped: False
Enable Stones	enable_stones	Whether or not the stones are enabled on the material.	Int	Boolean 1
				Enum Default: 5 Enum Values: 1: Basalt 2: Orange Sandstone 3:

				3: Sandstone 4: Shale 5: Siltstone 6: DirtRock 7: Dark Shale 8: Volcanic Rock 9: Limestone
Stone Color	stone_color	The color preset selection for the stones.	Int	
Stone Highlight Opacity	stone_highlight_opacity	The **Opacity** of the edge highlights on the stones.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Stone Pattern Amount	stone_pattern_amount	The amount of stones.	Int	Default: 8 Min: 1 Max: 32 Clamped: True
Stone Pattern Scale	stone_pattern_scale	The scale of the stones.	Float	Default: 0.77 Min: 0 Max: 5 Clamped: True
Stone Pattern Position Random	stone_pattern_position_random	The randomness of the stone positions.	Float	Default: 2 Min: 0 Max: 2 Clamped: True
Stone Pattern Mask Random	stone_pattern_mask_random	Randomly removes stones from the material. Useful for having fewer stones present.	Float	Default: 0.15 Min: 0 Max: 1 Clamped: True
Stone Pattern Height Random	stone_pattern_height_random	The randomness of the stones heights. Helps to conceal stones within the underlying material.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Stones Height Offset	stones_height_offset	The height offset of the stones. Lower offsets hides lower stones. Pairs with height randomness.	Float	Default: -1.7 Min: -2 Max: 2 Clamped: False
Stone Normal Intensity	stone_normal_intensity	The **Intensity** parameter modifies the intensity of height map of the stones.	Float	Default: 8.42 Min: 0 Max: 10 Clamped: False
				Default:

Stone Roughness	stone_roughness	The roughness of the stones.	Float	Default: 0.78 Min: 0 Max: 0 Clamped: False
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: 0.25 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 Wetness Distance	water_edges_wetness_distance	How far the edge wetness spreads on the material.	Float	Default: 0.1 Min: 0 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 Normal Intensity	snow_normal_intensity	The intensity of the normal map in respect to the snow covering.	Float	Default: 7.24 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: 3 Min: 1 Max: 16 Clamped:

		Waves" which are for micro-level details.		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 >= 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 >= 0.75 to avoid "bottoming out" on the height detail.	Float	Default: 0.46 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: 0.133139 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: 1 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: 0.54 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:

Label	Identifier	Description	Type	Notes
			Int	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
DirtRoughness Range	dirt_roughness_range	The value range of the roughness grunge.	Float	Default: 0.11 Min: 0 Max: 1 Clamped: True
Dirt Roughness Position	dirt_roughness_position	The overall roughness of the dirt.	Float	Default: 0.8 Min: 0 Max: 1 Clamped: True

CrackedGroundRock

Consts: `PolyLabs.PNTD.Dunes.CrackedGroundRock`

Label	Identifier	Description	Type	Notes
Cracked Rock Scale	cracked_rock_scale	The scale of the cracked rock.	Int	Default: 5 Min: 1 Max: 16 Clamped: True
Cracked Rock Slope Intensity	cracked_rock_slope_intensity	The intensity of the crack slope.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Cracked Rock Height Random	cracked_rock_height_random	Sets the intensity of the random height.	Float	Default: 0.23 Min: 0 Max: 1 Clamped: True
Rock Zoom	rock_zoom	The zoom of the rocks.	Int	Default: 7 Min: 1 Max: 16 Clamped: True
Rock Type	rock_type		Int	Enum Default: 2 Enum Values: 1: Basalt 2: Orange Sandstone 3: Sandstone 4: Shale

Rock Type	rock_type		Int	5: Siltstone 6: DirtRock 7: Dark Shale 8: Volcanic Rock 9: Limestone
col_highlight_color_opacity	col_highlight_color_opacity	The **Opacity** parameter sets the transparency of the blend	Float	Default: 0 Min: 0 Max: 1 Clamped: False
Sand Coloring	sand_coloring	The color preset for the sand effect.	Int	Enum Default: 2 Enum Values: 1: Beach Sand 2: Desert Sand 3: Sahara 4: Red
Sand Normal Intensity	sand_normal_intensity	The intensity of the normal map on the sand.	Float	Default: 5 Min: 0 Max: 10 Clamped: True
Sand Roughness	sand_roughness	The roughness of the sand. Lower values will give a "wet" look, while higher values will give a dry look with little reflectivity.	Float	Default: 0.8 Min: 0 Max: 1 Clamped: True
Sand Dunes Amount	sand_dunes_amount	The size and scale of the sand dunes. Dunes are intended to give macro-level height information to the material. Not to be confused with "Sand Waves" which are for micro-level details.	Int	Default: 3 Min: 1 Max: 16 Clamped: True
Sand Dunes Height Range	sand_dunes_height_range	The range of the sand dunes. Higher values means higher peaks and lower valleys, whereas lower values means the sand will be more evenly-distributed.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Sand Dunes Height Position	sand_dunes_height_position	The position of the sand dune height. Higher values will mean more of the material is flooded with sand. When using a high Sand Waves intensity, prefer to have this value >= 0.75 to prevent "bottoming out".	Float	Default: 0.75 Min: 0 Max: 1 Clamped: True
Sand Waves Intensity	sand_waves_intensity	The intensity of the micro-level sand waves. When using higher intensities, prefer to set the Dune Height Position >= 0.75 to avoid "bottoming out" on the height detail.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True

Sand Waves Rotation	sand_waves_rotation	The rotation of the sand waves. Maps 0-360 degrees from 0 to 1.	Float	Default: 0.25 Min: 0 Max: 1 Clamped: False
Sand Waves X Amount	sand_waves_x_amount	The number of sand waves on the x-axis.	Int	Default: 16 Min: 1 Max: 32 Clamped: True
Sand Waves Y Amount	sand_waves_y_amount	The amount of sand waves on the y-axis.	Int	Default: 4 Min: 1 Max: 16 Clamped: True
Sand Height Offset	sand_height_offset	The offset for how to balance the sand 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: 0.36 Min: 0 Max: 1 Clamped: True
Sand Height Mixing Contrast	sand_height_mixing_contrast	Controls the amount of fading should occur between the sand and the main material. Higher values give a more crisp cutoff between material and sand.	Float	Default: 0.9 Min: 0 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 Normal Intensity	snow_normal_intensity	The intensity of the normal map in respect to the snow covering.	Float	Default: 7.24 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: 3 Min: 1 Max: 16 Clamped: True
				Default: 1

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	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 >= 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 >= 0.75 to avoid "bottoming out" on the height detail.	Float	Default: 0.46 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: 0.133139 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: 1 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: 0.54 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
Enable Pebbles	enable_pebbles	Whether or not the pebbles are enabled on the material.	Int	Boolean 1

Enable Pebbles	enable_pebbles	Whether or not the pebbles are enabled on the material.	Int	Boolean 1
Pebble Pattern Mask Random	pebble_pattern_mask_random	Randomly removes pebbles from the material. Useful for having fewer pebbles present.	Float	Default: 0.07 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

CracklySand

Consts: `PolyLabs.PNTD.Dunes.CracklySand`

Label	Identifier	Description	Type	Notes
Cracks Scale	cracks_scale	The scale of the crackly sand	Int	Default: 8 Min: 1 Max: 16 Clamped: True
Sand Color Setting	sand_color_setting	The color setting of the sand.	Int	Enum Default: 1 Enum Values: 1: Beach Sand 2: Desert Sand 3: Sahara 4: Red
Soft Sand Level	soft_sand_level	The level of the soft sand compared to the crackly sand.	Float	Default: 0.9 Min: 0 Max: 1 Clamped: True
Sand Waves Rotation	sand_waves_rotation	The rotation of the sand waves	Float	Default: 0.25 Min: 0 Max: 1 Clamped: False
Sand Waves Intensity	sand_waves_intensity	The intensitty of the sand waves	Float	Default: 0.2 Min: 0 Max: 1 Clamped: False
Sand Waves Softness	sand_waves_softness	How soft the sand waves appear.	Float	Default: 2.46 Min: 0 Max: 16 Clamped: False
Enable Stones	enable_stones	Whether or not the stones are enabled on the material.	Int	Boolean 1

Stone Color	stone_color	The color preset selection for the stones.	Int	Enum Default: 3 Enum Values: 1: Basalt 2: Orange Sandstone 3: Sandstone 4: Shale 5: Siltstone 6: DirtRock 7: Dark Shale 8: Volcanic Rock 9: Limestone
Stone Highlight Opacity	stone_highlight_opacity	The **Opacity** of the edge highlights on the stones.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Stone Pattern Amount	stone_pattern_amount	The amount of stones.	Int	Default: 9 Min: 1 Max: 32 Clamped: True
Stone Pattern Scale	stone_pattern_scale	The scale of the stones.	Float	Default: 0.77 Min: 0 Max: 5 Clamped: True
Stone Pattern Position Random	stone_pattern_position_random	The randomness of the stone positions.	Float	Default: 2 Min: 0 Max: 2 Clamped: True
Stone Pattern Mask Random	stone_pattern_mask_random	Randomly removes stones from the material. Useful for having fewer stones present.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Stone Pattern Height Random	stone_pattern_height_random	The randomness of the stones heights. Helps to conceal stones within the underlying material.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Stones Height Offset	stones_height_offset	The height offset of the stones. Lower offsets hides lower stones. Pairs with height randomness.	Float	Default: 0 Min: -2 Max: 2

				Clamped: False
Stone Normal Intensity	stone_normal_intensity	The **Intensity** parameter modifies the intensity of height map of the stones.	Float	Default: 3 Min: 0 Max: 10 Clamped: False
Stone Roughness	stone_roughness	The roughness of the stones.	Float	Default: 0.78 Min: 0 Max: 0 Clamped: False
Invert Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1
Sand Roughness Position	sand_roughness_position	The roughness of the sand.	Float	Default: 0.8 Min: 0 Max: 1 Clamped: True

DesertCliff

Consts: `PolyLabs.PNTD.Dunes.DesertCliff`

Label	Identifier	Description	Type	Notes
Rock Type	rock_type	The type of rock color to use with this material.	Int	Enum Default: 4 Enum Values: 1: Basalt 2: Orange Sandstone 3: Sandstone 4: Shale 5: Siltstone 6: DirtRock 7: Dark Shale 8: Volcanic Rock 9: Limestone
Rock Highlights Opacity	rock_highlights_opacity	Controls the edge highlight strength on the rocks.	Float	Default: 0.25 Min: 0 Max: 1 Clamped: True
Rock				Default: 0.08

Roughness Range	rock_roughness_range	The range of the roughness on the rock portions of the material.	Float	Min: 0 Max: 1 Clamped: True
Rock Roughness Position	rock_roughness_position	The position of the roughness on the rock. Higher positions yield rocks that are less reflective.	Float	Default: 0.77 Min: 0 Max: 1 Clamped: True
Rock Normal Intensity	rock_normal_intensity	The **Intensity** parameter modifies the intensity of height map	Float	Default: 5 Min: 0 Max: 15 Clamped: False
Ambient Occlusion Intensity	ambient_occlusion_intensity	Defines the intensity of the AO to simulate shadowed areas on the material.	Float	Default: 0.15 Min: 0 Max: 1 Clamped: True
X Amount	x_amount		Int	Default: 8 Min: 1 Max: 64 Clamped: False
Y Amount	y_amount		Int	Default: 6 Min: 1 Max: 64 Clamped: False
Enable Sand	enable_sand_switch	Enables the sand effect. When not in use, disabling has performance benefits.	Int	Boolean 1
Sand Coloring	sand_coloring	The color preset for the sand effect.	Int	Enum Default: 2 Enum Values: 1: Beach Sand 2: Desert Sand 3: Sahara 4: Red
Sand Normal Intensity	sand_normal_intensity	The intensity of the normal map on the sand.	Float	Default: 5 Min: 0 Max: 10 Clamped: True
Sand Roughness	sand_roughness	The roughness of the sand. Lower values will give a "wet" look, while higher values will give a dry look with little reflectivity.	Float	Default: 0.8 Min: 0 Max: 1 Clamped: True
Sand		The size and scale of the sand dunes. Dunes are intended to give macro-level		Default: 3 Min: 1

Dunes Amount	sand_dunes_amount	height information to the material. Not to be confused with "Sand Waves" which are for micro-level details.	Int	Max: 16 Clamped: True
Sand Dunes Height Range	sand_dunes_height_range	The range of the sand dunes. Higher values means higher peaks and lower valleys, whereas lower values means the sand will be more evenly-distributed.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Sand Dunes Height Position	sand_dunes_height_position	The position of the sand dune height. Higher values will mean more of the material is flooded with sand. When using a high Sand Waves intensity, prefer to have this value >= 0.75 to prevent "bottoming out".	Float	Default: 0.75 Min: 0 Max: 1 Clamped: True
Sand Waves Intensity	sand_waves_intensity	The intensity of the micro-level sand waves. When using higher intensities, prefer to set the Dune Height Position >= 0.75 to avoid "bottoming out" on the height detail.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Sand Waves Rotation	sand_waves_rotation	The rotation of the sand waves. Maps 0-360 degrees from 0 to 1.	Float	Default: 0.0277778 Min: 0 Max: 1 Clamped: False
Sand Waves X Amount	sand_waves_x_amount	The number of sand waves on the x-axis.	Int	Default: 16 Min: 1 Max: 32 Clamped: True
Sand Waves Y Amount	sand_waves_y_amount	The amount of sand waves on the y-axis.	Int	Default: 4 Min: 1 Max: 16 Clamped: True
Sand Height Offset	sand_height_offset	The offset for how to balance the sand 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: 0.57 Min: 0 Max: 1 Clamped: True
Sand Height Mixing Contrast	sand_height_mixing_contrast	Controls the amount of fading should occur between the sand and the main material. Higher values give a more crisp cutoff between material and sand.	Float	Default: 0.8 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

DesertGrass

Consts: `PolyLabs.PNTD.Dunes.DesertGrass`

Label	Identifier	Description	Type	Notes
Dirt Cracks Scale	dirt_cracks_scale	The scale of the dirt cracks	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: 0.79 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: 5 Min: 1 Max: 32 Clamped: False
Dirt Pebbles Scale	dirt_pebbles_scale	The size of the individual pebbles.	Float	Default: 0.78 Min: 0 Max: 3 Clamped: False
Enable Stones	enable_stones	Whether or not the stones are enabled on the material.	Int	Boolean 1
Stone Color	stone_color	The color preset selection for the stones.	Int	Enum Default: 5 Enum Values: 1: Basalt 2: Orange Sandstone 3: Sandstone 4: Shale 5: Siltstone 6: DirtRock 7: Dark Shale 8: Volcanic Rock 9: Limestone
				Default: 1

Stone Highlight Opacity	stone_highlight_opacity	The **Opacity** of the edge highlights on the stones.	Float	Min: 0 Max: 1 Clamped: True
Stone Pattern Amount	stone_pattern_amount	The amount of stones.	Int	Default: 8 Min: 1 Max: 32 Clamped: True
Stone Pattern Scale	stone_pattern_scale	The scale of the stones.	Float	Default: 0.77 Min: 0 Max: 5 Clamped: True
Stone Pattern Position Random	stone_pattern_position_random	The randomness of the stone positions.	Float	Default: 2 Min: 0 Max: 2 Clamped: True
Stone Pattern Mask Random	stone_pattern_mask_random	Randomly removes stones from the material. Useful for having fewer stones present.	Float	Default: 0.15 Min: 0 Max: 1 Clamped: True
Stone Pattern Height Random	stone_pattern_height_random	The randomness of the stones heights. Helps to conceal stones within the underlying material.	Float	Default: 1 Min: 0 Max: 1 Clamped: True
Stones Height Offset	stones_height_offset	The height offset of the stones. Lower offsets hides lower stones. Pairs with height randomness.	Float	Default: -1.7 Min: -2 Max: 2 Clamped: False
Stone Normal Intensity	stone_normal_intensity	The **Intensity** parameter modifies the intensity of height map of the stones.	Float	Default: 8.42 Min: 0 Max: 10 Clamped: False
Stone Roughness	stone_roughness	The roughness of the stones.	Float	Default: 0.78 Min: 0 Max: 0 Clamped: False
Enable Grass	enable_grass	Whether to show the grass or not. Turning off when otherwise not present has performance benefits.	Int	Boolean 1
				Enum Default: 3 Enum Values: 1: Green 2: Light

Grass Color	grass_color	The color preset of the grass.	Int	2: Light Green 3: Lawn Green 4: Red 5: Blue 6: Dried 7: Custom Color
Grass Custom Color	grass_custom_color	Sets the custom grass color. The custom color must be selected in the color preset.	Float4	
Grass Style	grass_style	The style of the grass.	Int	Enum Default: 2 Enum Values: 1: Leafy Grass 2: Grass Blade 3: Sharp Grass
Grass Pattern Zoom	grass_pattern_zoom	The number of grass blades on the x and y axis.	Int	Default: 28 Min: 1 Max: 64 Clamped: False
Grass Pattern Rotation Offset	grass_pattern_rotation_offset	The rotation offset of all elements.	Float	Default: 0 Min: 0 Max: 1 Clamped: False
Grass Pattern Rotation Random	grass_pattern_rotation_random	The randomness of the rotation of each element.	Float	Default: 0.2 Min: 0 Max: 1 Clamped: True
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: 0.25 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

Wetness				Max: 1 Clamped: True
Water Edges Wetness Distance	water_edges_wetness_distance	How far the edge wetness spreads on the material.	Float	Default: 0.1 Min: 0 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 Normal Intensity	snow_normal_intensity	The intensity of the normal map in respect to the snow covering.	Float	Default: 7.24 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: 3 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 >= 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 >= 0.75 to avoid "bottoming out" on the height detail.	Float	Default: 0.46 Min: 0 Max: 1 Clamped: True

				True
Snow Waves Rotation	snow_waves_rotation	The rotation of the snow waves. Maps 0-360 degrees from 0 to 1.	Float	Default: 0.133139 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: 1 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: 0.54 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 Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1
Dirt Roughness Range	dirt_roughness_range	The value range of the roughness map on the dirt.	Float	Default: 0.11 Min: 0 Max: 1 Clamped: True
Dirt Roughness Position	dirt_roughness_position	The amount of roughness on the dirt.	Float	Default: 0.8 Min: 0 Max: 1 Clamped: True

Mud

Consts: `PolyLabs.PNTD.Dunes.Mud`

Label	Identifier	Description	Type	Notes
Mud Scale	mud_scale	The scale of the mud pattern.	Int	Default: 10 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: 0.43 Min: 0 Max: 3 Clamped: False
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: 0.23 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
				Default: 0.5

Label	Identifier	Description	Type	Notes
Water Edges Wetness	water_edges_wetness	How we the edges where the material meets the water appears.	Float	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

NauticalSeaFloor

Consts: `PolyLabs.PNTD.Dunes.NauticalSeaFloor`

Label	Identifier	Description	Type	Notes
Sand Noise Scale	sand_noise_scale	The scale of the sand waves.	Int	Default: 5 Min: 1 Max: 16 Clamped: True
Sand Color	sand_color	The color preset of the sand.	Int	Enum Default: 1 Enum Values: 1: Beach Sand 2: Desert Sand 3: Sahara 4: Red
Enable Nautical	enable_nautical	Enables nautical elements on the material.	Int	Boolean 1
Nautical Coral Color	nautical_coral_color	The color preset of the coral.	Int	Enum Default: 2 Enum Values: 1: White 2: Orange 3: Purple 4: Black
Nautical Coral Amount	nautical_coral_amount	Amount of coral splotches to show.	Int	Default: 6 Min: 1 Max: 16 Clamped: True
				Default: 1

Nautical Coral Scale	nautical_coral_scale	The scale of the coral spots.	Float	Min: 0 Max: 3 Clamped: False
Nautical Coral Mask Random	nautical_coral_mask_random	Randomly removes coral spots from the material.	Float	Default: 0.7 Min: 0 Max: 1 Clamped: True
Nautical Coral Height Random	nautical_coral_height_random	randomizes the height of the coral spots.	Float	Default: 0 Min: 0 Max: 1 Clamped: True
Nautical Starfish Color	nautical_starfish_color	The color preset of the starfish	Int	Enum Default: 5 Enum Values: 1: Orange 2: Sun Dried 3: Yellow 4: Purple 5: Random
Nautical Starfish Amount	nautical_starfish_amount	The amount of starfish to show.	Int	Default: 3 Min: 1 Max: 8 Clamped: True
Nautical Starfish Size	nautical_starfish_size	The scale of the starfish.	Float	Default: 2 Min: 0 Max: 5 Clamped: True
Nautical Starfish Mask Random	nautical_starfish_mask_random	Randomly removes starfish form the material.	Float	Default: 0.7 Min: 0 Max: 1 Clamped: True
Nautical Seashell Color	nautical_seashell_color	The color preset of the seashell.	Int	Enum Default: 5 Enum Values: 1: White 2: Tan 3: Sandy 4: Dark 5: Random

Nautical Seashell Amount	nautical_seashell_amount	The amount of shells to show.	Int	Default: 4 Min: 1 Max: 32 Clamped: True
Nautical Shell Scale	nautical_shell_scale	The scale of the shells.	Float	Default: 0.75 Min: 0 Max: 5 Clamped: True
Nautical Shell Mask Random	nautical_shell_mask_random	Randomly removes shells from the material.	Float	Default: 0 Min: 0 Max: 1 Clamped: True
Nautical Normal Intensity	nautical_normal_intensity	The **Intensity** parameter modifies the intensity of height map	Float	Default: 3 Min: 0 Max: 10 Clamped: False
Nautical Roughness	nautical_roughness	The roughness of the natucial elements	Float	Default: 0.6 Min: 0 Max: 0 Clamped: False
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: 0.25 Min: 0 Max: 1 Clamped: True
Water Darkness	water_darkness	The amount to darken the areas that are submerged on the material	Float	Default: 0.24 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: 0.41 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: 0.25 Min: 0 Max: 1 Clamped: True

Label	Identifier	Description	Type	Notes
Invert Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1

OceanFloor

Consts: `PolyLabs.PNTD.Dunes.OceanFloor`

Label	Identifier	Description	Type	Notes
Sand Waves Amount	sand_waves_amount	The amount of sand waves to show.	Int	Default: 12 Min: 1 Max: 32 Clamped: True
Sand Warp Intensity	sand_warp_intensity	The **Intensity** parameter sets the intensity of the warp	Float	Default: 1 Min: 0 Max: 16 Clamped: True
Sand Color	sand_color	The color preset of the sand.	Int	Enum Default: 1 Enum Values: 1: Beach Sand 2: Desert Sand 3: Sahara 4: Red
Enable Stones	enable_stones	Whether or not the stones are enabled on the material.	Int	Boolean 1
Stone Color	stone_color	The color preset selection for the stones.	Int	Enum Default: 1 Enum Values: 1: Basalt 2: Orange Sandstone 3: Sandstone 4: Shale 5: Siltstone 6: DirtRock 7: Dark Shale 8: Volcanic Rock 9: Limestone
Stone Highlight Opacity	stone_highlight_opacity	The **Opacity** of the edge highlights on the stones.	Float	Default: 0.5 Min: 0 Max: 1

				Clamped: True
Stone Pattern Amount	stone_pattern_amount	The amount of stones.	Int	Default: 3 Min: 1 Max: 32 Clamped: True
Stone Pattern Scale	stone_pattern_scale	The scale of the stones.	Float	Default: 0.33 Min: 0 Max: 5 Clamped: True
Stone Pattern Position Random	stone_pattern_position_random	The randomness of the stone positions.	Float	Default: 0.5 Min: 0 Max: 2 Clamped: True
Stone Pattern Mask Random	stone_pattern_mask_random	Randomly removes stones from the material. Useful for having fewer stones present.	Float	Default: 0.33 Min: 0 Max: 1 Clamped: True
Stone Pattern Height Random	stone_pattern_height_random	The randomness of the stones heights. Helps to conceal stones within the underlying material.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Stones Height Offset	stones_height_offset	The height offset of the stones. Lower offsets hides lower stones. Pairs with height randomness.	Float	Default: 0 Min: -2 Max: 2 Clamped: False
Stone Normal Intensity	stone_normal_intensity	The **Intensity** parameter modifies the intensity of height map of the stones.	Float	Default: 3 Min: 0 Max: 10 Clamped: False
Stone Roughness	stone_roughness	The roughness of the stones.	Float	Default: 0.78 Min: 0 Max: 0 Clamped: False
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: 0.32 Min: 0 Max: 1 Clamped: True

Label	Identifier	Description	Type	Notes
Water Darkness	water_darkness	The amount to darken the areas that are submerged on the material	Float	Default: 0.17 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: 0.79 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: 0.57 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

SandDunes

Consts: `PolyLabs.PNTD.Dunes.SandDunes`

Label	Identifier	Description	Type	Notes
Sand Color	sand_color	The color preset of the sand.	Int	Enum Default: 1 Enum Values: 1: Beach Sand 2: Desert Sand 3: Sahara 4: Red
Sand Noise Scale	sand_noise_scale	The scale of the sand noise	Int	Default: 10 Min: 1 Max: 16 Clamped: True
Enable Stones	enable_stones	Whether or not the stones are enabled on the material.	Int	Boolean 1
Stone Color	stone_color	The color preset selection for the stones.	Int	Enum Default: 1 Enum Values: 1: Basalt 2: Orange Sandstone 3: Sandstone 4: Shale 5:

				Siltstone 6: DirtRock 7: Dark Shale 8: Volcanic Rock 9: Limestone
Stone Highlight Opacity	stone_highlight_opacity	The **Opacity** of the edge highlights on the stones.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Stone Pattern Amount	stone_pattern_amount	The amount of stones.	Int	Default: 9 Min: 1 Max: 32 Clamped: True
Stone Pattern Scale	stone_pattern_scale	The scale of the stones.	Float	Default: 0.77 Min: 0 Max: 5 Clamped: True
Stone Pattern Position Random	stone_pattern_position_random	The randomness of the stone positions.	Float	Default: 2 Min: 0 Max: 2 Clamped: True
Stone Pattern Mask Random	stone_pattern_mask_random	Randomly removes stones from the material. Useful for having fewer stones present.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Stone Pattern Height Random	stone_pattern_height_random	The randomness of the stones heights. Helps to conceal stones within the underlying material.	Float	Default: 0.5 Min: 0 Max: 1 Clamped: True
Stones Height Offset	stones_height_offset	The height offset of the stones. Lower offsets hides lower stones. Pairs with height randomness.	Float	Default: 0 Min: -2 Max: 2 Clamped: False
Stone Normal Intensity	stone_normal_intensity	The **Intensity** parameter modifies the intensity of height map of the stones.	Float	Default: 3 Min: 0 Max: 10 Clamped: False
Stone Roughness	stone_roughness	The roughness of the stones.	Float	Default: 0.78 Min: 0

				Max: 0 Clamped: False
Enable Grass	enable_grass	Whether to show the grass or not. Turning off when otherwise not present has performance benefits.	Int	Boolean 1
Grass Color	grass_color	The color preset of the grass.	Int	Enum Default: 1 Enum Values: 1: Green 2: Light Green 3: Lawn Green 4: Red 5: Blue 6: Dried 7: Custom Color
Grass Custom Color	grass_custom_color	Sets the custom grass color. The custom color must be selected in the color preset.	Float4	
Grass Pattern Zoom	grass_pattern_zoom	The number of grass blades on the x and y axis.	Int	Default: 32 Min: 1 Max: 64 Clamped: False
Grass Pattern Scale	grass_pattern_scale	The scale of the elements.	Float	Default: 6.01 Min: 0 Max: 10 Clamped: False
Grass Pattern Rotation Offset	grass_pattern_rotation_offset	The rotation offset of all elements.	Float	Default: 0 Min: 0 Max: 1 Clamped: False
Grass Pattern Rotation Random	grass_pattern_rotation_random	The randomness of the rotation of each element.	Float	Default: 0.15 Min: 0 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				Default: 5 Min: 0

Normal Intensity	snow_normal_intensity	The intensity of the normal map in respect to the snow covering.	Float	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: 3 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 >= 0.75 to prevent "bottoming out".	Float	Default: 0.59 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 >= 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				Default: 4 Min: 1

Snow Waves Y Amount	snow_waves_y_amount	The number of snow waves on the y-axis.	Int	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: 0.5 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 Normal Map	invert_normal_map	Inverts the normal map direction for compatability with OpenGL and DirectX.	Int	Boolean 1
Grass Patchiness	grass_patchiness	How patchy the grass appears on the sand.	Float	Default: 0.3 Min: 0 Max: 1 Clamped: True
Grass Height Offset	grass_height_offset	Determines the height offset of the grass. Higher values will make them appear higher on the material.	Float	Default: 0.6 Min: 0 Max: 1 Clamped: True