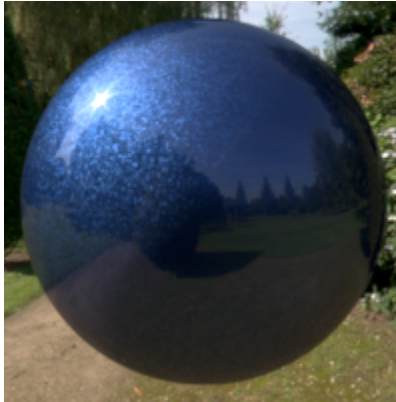# PxrFlakes

Car Paint with flakes and coating.

Produces a bumped normal that simulates flake-like results in specular or reflective material effects. Connecting this to a the Bump Normal parameter of PxrSurface can create metallic fleck paint.

Input Parameters

Input Normal

Connect your bump pattern here if you wish to add flakes on top of it. Ignored if not connected.

Flake Randomness

This increases the distribution of flake normals, or their deviation from the base normal.

    0.0
    0.1
    0.2
    0.4
    0.8

Flake Frequency

Changes the global size of the metal flake features.

    10
    20
    40
    80

Flake Density

Changes the number of metal flakes for a given area. Valid between 0 (no flakes) and 1 (all flakes).

    0.125
    0.25
    0.5
    1.0

Flake Size

Changes the size of metal flakes. Pushing the value above one will create something akin to galvanized metal.

0.25
0.5
1.0
2.0

Octaves

Number of octaves of noise to calculate flakes. Most of the time, 1 is enough.

1
2
3

Jitter

Jitters the flake's position. 0.0 gives a grid-like organisation and 1.0 looks very random.

Validate Normals

Make sure flakes normals are always in the same hemisphere as the original normal.

Manifold

The manifold over which to apply the flakes.

The default (when there is no connected manifold) is P in *object* space. This will work fine if your object is not deforming.
If your object is deforming :

- Add a __Pref primvar to your geometry in its un-deformed state.
- Create a PxrManifold3D node and connect it to the PxrFlakes node.
- In the manifold's *Pref* field enter: __Pref
- In the manifold's *Coordinate System* field enter: object

Output Parameters

resultN

The bumped normal.

resultA

The flakes' mask. This is a black and white mask that may allow you to tint flakes or change their roughness, for example.