

## Tutorial by Masters1337 on Creating a Chrome Shader, edited by TheGhost

I've used these quite a lot, and they always come out quite nice.

1. Open a shader environment tag.
2. Make sure the only flags checked are "overbright," "extra-shiny," and "lightmap is specular." These are under "specular properties" near the end of the tag.
3. Set everything in specular properties and reflection properties to 1, and in reflection properties reference a cube map (such as "vehicles\warthog\reflection diffuse metal.bitmap"). The bottom of your tag should look like this:

The screenshot shows a configuration window for a shader environment tag, divided into two main sections: "specular properties" and "reflection properties".

**specular properties**  
Controls dynamic specular highlights. The highlight is modulated by <brightness> as well as a blend between <perpendicular color> and <parallel color>.  
Set <brightness> to zero to disable.

flags:  overbright,  extra-shiny,  lightmap is specular

brightness: 1 [0,1]

perpendicular color: r 1, g 1, b 1

parallel color: r 1, g 1, b 1

**reflection properties**  
Controls environment cube map reflections. The color of the cube map is "tinted" by a blend between <perpendicular color> and <parallel color> from the SPECULAR PROPERTIES above, and then modulated by a blend between <perpendicular brightness> and <parallel brightness>.

**BUMPED CUBE MAP:**  
This type of reflection uses the shader's bump map (if it exists) to affect the reflection, as well as the perpendicular and parallel brightness (i.e. the "fresnel" effect).

**FLAT CUBE MAP:**  
This is the fastest type of reflection. The bump map is used to attenuate the fresnel effect, but the reflection image itself is not bumped.

Clear <reflection cube map> or set both <perpendicular brightness> and <parallel brightness> to zero to disable.

flags:  dynamic mirror

type: bumped cube-map

lightmap brightness scale: 1 [0,1]

perpendicular brightness: 1 [0,1]

parallel brightness: 1 [0,1]

reflection cube map: detail\_and\_cube\_maps\reflection diffuse m ... Open

Note: I store my cube maps in a separate folder, use the "vehicles\warthog\reflection diffuse metal.bitmap" if you want to use the same one I use.

In-game it should look like:



Here is another example:



Compile map or load Sapien and enjoy!