

リスト 3.4

colorMap.frag

```
varying vec3 P;
varying vec3 N;
uniform sampler2D sampler;

void main(void)
{
    vec3 L = normalize(gl_LightSource[0].position.xyz - P);
    N = normalize(N);

    vec4 ambient = gl_FrontLightProduct[0].ambient;
    float dotNL = dot(N, L); //max(0.0, dot(N, L));
    vec4 diffuse = gl_FrontLightProduct[0].diffuse * max(0.0, dotNL);
    vec3 V = normalize(-P);
    vec3 H = normalize(L + V);
    float powNH = pow(max(dot(N, H), 0.0), gl_FrontMaterial.shininess);
    if(dotNL <= 0.0) powNH = 0.0;
    vec4 specular = gl_FrontLightProduct[0].specular * powNH;
    //テクスチャの色
    vec4 texColor = texture2D(sampler, gl_TexCoord[0].st);
    //GL_MODULATEモード
    gl_FragColor = (ambient + diffuse) * texColor + specular;
    //任意の混合比
    //gl_FragColor = mix(ambient + diffuse, texColor, 0.5) + specular;
}
```