```
function out = Filter_BW(img)

thresh = graythresh(img);

out_tmp = uint8(im2bw(img,thresh)).*255;

out_tmp(sum(out_tmp,3) == 0) = 1;

out = zeros(size(img));

for i=1:3

   out(:,:,i) = out_tmp;

end

end
```

Published with MATLAB® R2017b