

## Re: Color darker when wet

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*Source:* <http://sci.tech--archive.net/Archive/sci.physics/2006-01/msg03943.html>

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  - *Date:* Mon, 30 Jan 2006 17:47:58 +0000 (UTC)
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In article <1138633617.754028.120720@xx>, MKrojc <krojc@xxxxxxx> wrote:

>Yes, I'm talking about all materials that absorb water!

>

>I did a "test" with cloth, paper and a piece of a brick and I placed  
>drops of different liquids on it: hexane, kitchen oil, ethanol, water,  
>glycerol and gasoline. In all cases one drop of liquid changed the  
>appearance of a "wet" dot color to exactly the same (keep in mind that  
>my eye was a meter" shade of color even in cases when liquid itself is  
>not transparent.

>

>But there is a difference, that can be observed only on non translucent  
>materials – brick in my case. If I take a piece of paper and wet it  
>then it appears darker only if background is solid, if I look at the  
>light it appears lighter.

>

>How can I understand this?

>

Nice question. I don't know the answer. But what changes when it's wet versus dry? It's not the chemistry— wet sidewalks are darker than dry sidewalks. I can only think of the index of refraction of the liquid, which is higher than that of air. Maybe in another round of experiments you can try wetting spots with liquids of different indices of refraction and see if you can see which is darker.

Also consider that powder is usually whiter than the material it came from, and polished stones look darker and wet. If you think of polished granite, like on the side of a building, it looks like granite unless you're at the angle that the Sun reflects from it. Then it's blinding. Rough stone reflects light more diffusively, and maybe looks whiter because the colors of the stone compete with the diffuse reflections from little tiny mirror-like surfaces pointing in every direction. And maybe water has a kind of lensing effect that reduces diffuse scattering.

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"Voice or no voice, the people can always be brought to the bidding of the leaders. This is easy. All you have to do is to tell them they

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are being attacked, and denounce the pacifists for lack of patriotism and exposing the country to danger." — Hermann Goering

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- **References:**

- ◆ **Color darker when wet**  
◇ From: MKrojc
- ◆ **Re: Color darker when wet**  
◇ From: Andy Resnick
- ◆ **Re: Color darker when wet**  
◇ From: MKrojc

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