Can I use sunlight to expose your presensitized boards?

This is an excellent question. It is not a simple yes or no answer. There are many cases where users have successfully exposed our boards using sunlight. This does not surprise us because what is needed to expose our presensitized boards is a UV light source.

Using sunlight however is not something we suggest. There is a relationship between the intensity of the light and the amount of exposure time. To have consistent quality every time, you must be able to control both variables. The intensity of sunlight is not something we can control. Not by an average user anyway.

Our **Exposure Kit (Cat. No. 416-X)** comes with a 15 watt daylight rated fluorescent light bulb (wave length of approximately 400nm). At this intensity and at a height of 5 inches above the board, we find that the optimal exposure time is 12 minutes.

Other light sources will also work but tests will need to be performed to find the optimal exposure time. The following formula will be able to help you determine a good starting point to test from:

$$X = r^2 / P$$

Where,
X = Exposure time
r = distance of light source above the board (centimeters)
P = intensity of light in watts

Here is an example for our 600 series boards using our own Exposure Kit (Cat. No. 416-X):

r = 5 inches
P = 15 watts

Therefore,
R = (5) (2.54)
= 12.7 cm

X = 12.72 / 15
= 161.29 / 15
= 10.75

Exposure Kit Cat. No. 416-X

You can see that using this formula gives us 10.75 minutes of exposure time. As indicated earlier, our optimal exposure time is 12 minutes. Keep in mind that the formula is only a guide to get you close to the exposure time and not the optimal exposure time. You can now see why using sunlight may work but not suggested because we are unable to control the P variable.

For complete photofabrication instructions, visit www.mgchemicals.com/techsupport.

E-mail info@mgchemicals.com
Phone 1-800-201-8822
1-604-888-3084
Fax 1-800-708-9888
1-604-888-7754

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