

SAATI 21 Step Calculator

Attach to Stencil Material Before Exposure to Easily Quantify the Cure Level

This is the exposure guide of choice for accuracy, ease of use and all-purpose application. With the SAATI guide, there is no guesswork or complicated interpretation. It is a more precise tool than the gelatin/density type exposure calculators, and unlike competitive products, it can be used on all stencil types and all mesh counts (Other exposure guides are not compatible with pure photopolymer stencils, and do not perform as well on coarse mesh).

Our 21-step guide is also much smaller (1/2" x 5 1/4"), that it can be used on all production screens. The SAATI Sensitivity Guide is a film containing a transmission type density scale with 21 steps ranging from transparent to opaque. (1 = zero density. 21 = solid black.)

Directions

Place the SAATI 21-Step Sensitivity Guide on the screen. If the exposure time and intensity are correct, then you are left with 7 solid steps (like header image).



1-6 steps = underexposure,
premature stencil
failure, pinholes

8-21 steps = overexposure, loss of details,
faded edges, washout difficulty



7 Steps remaining on stencil after washout represent perfect exposure
(aim for 6 steps with CtS exposure)

Corrections

If there is overexposure (8+ steps for traditional) or underexposure (<6 steps for traditional, or <5 for CtS exposure), then you must calibrate the exposure time according to the charts on the next page.

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To increase exposure by	Multiply exposure by
1 step	1.4x
2 steps	2.0x
3 steps	2.8x
4 steps	4.0x

To decrease exposure by	Multiply exposure by
1 step	0.70x
2 steps	0.50x
3 steps	0.33x
4 steps	0.25x

Examples

10 Seconds

Step 4

underexposed

R_x: 2.8x (28s)



60 Seconds

Step 9

underexposed

R_x: 0.5x (30s)



30 Seconds

Step 7

Perfect Cure



Advanced Uses

When you record the correct exposure times for each of your products at different coating thicknesses, you will have a valuable tool that will save your time, product and money.

If you expose several stencils for the same amount of time but find some overexposed or details falling out, this can suggest an inconsistencies with your coating thicknesses.

You may find that a different step result produces better prints for a particular product you are using. The 21 step guide is useful in that you can determine the optimum result taking into account different cure levels.

You can pick any value on the step guide, but for most products, 7 steps is the preferred cure level.