



## South Shields Photographic Society & Digital Group

Centennial Year Celebrating 100 Years 1913 – 2013

### Colour Negative Film Developing

The development of a colour negative film often referred to as C41 film is no more complex than the processing of a black and white film, they both require a bath of three chemicals which in this case are a Colour Developer, Stop Bath and a combined Bleach/Fixer which need to be kept at a constant temperature during the processing run. This can be done quite simply by using a water bath i.e. a washing up dish or basin approximately 450mm x 300mm x 230mm, although size is not critical it should be able to hold enough water to be able to maintain a constant temperature. The cooler water is simply replaced with hot water at regular intervals to maintain the temperature, I used the bathroom washing basin for few years to good effect, even processing E6 films using the same method by simply turning on the hot water tap and allowing the surplus water to empty out through the basins overflow slot.

To begin with you need to prepare the solutions as according to the kits instructions, a word of caution however should be observed, that all mixing containers must be 100% clean as any cross contamination of any of the chemicals will result in an undesired effect on the film, therefore you must rinse mixing/measuring containers thoroughly in clean water between the mixing of each chemical stage. There are three basic chemical solutions required to develop a colour negative film as mentioned above and the preparation of them is fairly straightforward.

Decide on a processing temperature the optimum being 38°C although you can work + or – 2°C either side providing you adjust your colour development times, the bleach/fix times remain unchanged Start by bringing the solutions up to your allotted processing time and load the film into the tank in complete darkness, beware of any neon lights from any source as they can fog films or create colour casts which I found to my cost when doing my first film. During my first attempt at processing my own colour films I found the neon light from a power point created an unwanted green cast and as I struggled to load the film into the developing tank I had unwittingly exposed the undeveloped film to the very dim glow of that red neon light and ruined a good film.

Having got the film into the tank the step is to process it, which takes approximately 20 minutes. The colour development and agitation times are critical to maintain constant results whilst the rinse times given in the processing guides given with each kit are a minimum recommendation, likewise the Bleach/Fix once poured can be left longer than the stated time without any adverse effects on the film.

#### Step-by-Step Guide

1. Load the film into the development tank in complete darkness
2. Ensure the chemicals are at the correct processing temperature
3. Preheat the tank and the film by adding water at 2°C higher than the processing temperature and drain after 1 minute (the water may be coloured this is normal).
4. Pour in the Developer tap drum on a hard surface to release any trapped air bubbles and agitate for 20 seconds. Then agitate for 5 seconds every 30 seconds during the development time, approximately 15 seconds pour out the developer (save for re-use)
5. Pour in Stop Bath and agitate for 30 seconds and drain
6. Pour in Bleach/Fix and agitate for 30 seconds and then for 5 seconds every 30 seconds, drain and save for re-use.
7. Wash in warm water for approximately 5 minutes or repeated changes of water
8. Rinse in warm water with a few drops of wetting agent and squeegee and hang up to dry in a warm dust free place. The film may have a milky appearance that is normal and will disappear when dry.

Congratulations you have processed your first Colour Negative Film- they are now ready for printing.

ENJOY YOUR PROCESSING  
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