## **Tanol Speed**

update June 2008

## **Developing Times Chart**

Roll film 120 and 35mm 135/36 in common spiral tanks

Dilution 1+1+100

Agitation: Inverse tank continuously the first 30 seconds, continue then with two times every 30 seconds. Agitation must be increased when high dilutions are used!

2/15 means 2 inversions every 15 seconds, or 2/30 2 inversions every 30 seconds.

The least amount of developer (A+B) per film is 2,5+2,5ml.

It is recommended to use distilled water. Using tab water may produce slight differences at film speed.

Roll 120 1+1+100 (5+5+500) - 1+1+75 (6+6+450) - 1+1+60 (8+8+480)

The use of a dropper etc. is recommended for handling small amounts of concentrates. Never use the droppers for different solutions before thoroughly washing. The solution should first turn into a reddish-yellow when mixed with water. After being stirred well it should get almost colourless and be used within next 10-15 minutes. A 0,5-1% acid stop bath is recommended to stop the development. Fixing: According to producers directions. Washing: 6-10minutes

PH value lies around 10.25. Recommended film speed should be maintained for the first trials.

On behalf of better shadow detail the value for Zone I differs (0.12 log D or more) from the ISO-Norm. Even at adjustment to higher film speed ( right side of table ) target values for both shades and highlights are obtained.

## **Normal-dilution 1+1+100** (5+5+500ml)

## higher film speed

due to differing dilutions, times, agitation

|                         |         | due to differing dilutions, diffies, agradion |       |      |   |      |         |       |       |      |             |
|-------------------------|---------|---|-------|------|---|------|---------|-------|-------|------|-------------|
|                         |         | 24°C  | 20°C  |      |   |      |         | °C/°F | Time  | Inv. |             |
| Film                    | ISO     | 75°F  | 64°F  | Inv. | _ | 1+1  | ISO     |       |       |      | base&fog    |
| Agfa APX100             | 100/21° | 10:45   | 16:00 | 2    | Ľ | +100 | 125/22° | 24/75 | 12:15 | 2    | low         |
| Agfa APX400             | 250/25° | 12:00   | 17:30 | 2    | L | +130 | 320/26° | 24/75 | 18:00 | 6    | high        |
| ADOX CHS / 25 Efke 25   | 20/14°  | 7:30  | 11:00 | 1    | Ŀ | +130 | 25/15°  | 24/75 | 12:00 | 4    | low         |
| Efke R50 und KB50       | 50/18°  | 9:00  | 13:30 | 2    | L |      |         |       |       |      | low         |
| ADOX R50                |         |   |       |      |   | +70  | 50/18°  | 20/64 | 9:30  | 4    | low         |
| ADOX CHM 125 pro        | 100/21° | 7:30  | 11:00 | 2    | H | +100 | 250/25° | 24/75 | 13:00 | 2    | low         |
| ADOX CHM 400 pro        | 250/25° | 10:30   | 15:30 | 2    | Ŀ | +100 | 400/27° | 24/75 | 15:00 | 3    | low         |
| Classic Pan 200         | 160/23° | 15:30   |       | 2    | L |      |         | 24/75 |       |      | high        |
| Forte Pan 200           | 160/23° | 15:30   |       | 2    |   |      |         | 24/75 |       |      | high        |
| Fuji Acros              | 80/20°  | 9:30  | 14:00 | 2    | 4 | +130 | 100/21° | 24/75 | 14:00 | 4    | very low    |
| Fuji Neopan 400         | 200/24° | 12:00   | 17:45 | 2    | 4 | +130 | 250/25° | 24/75 | 18:00 | 4    | very high   |
| Ilford PanF             | 32/16°  |   | 7:30  | 2    | F | +100 | 80/20°  | 24/75 | 8:30  | 3    | very low    |
| Ilford FP4              | 125/22° | 9:30  | 14:00 | 2    | 4 | +100 | 200/24° | 24/75 | 13:00 | 2    | low         |
| Ilford Delta 100        | 80/20°  | 7:00  | 10:30 | 2    | 4 | +130 | 125/22° | 24/75 | 10:00 | 5    | sehr slight |
| Ilford Delta 400        | 250/25° | 12:30   | 18:30 | 2    |   |      |         | 24/75 |       |      | low         |
| Ilford HP5              | 250/25° | 10:30   | 15:30 | 2    | 4 | +100 | 400/27° | 24/75 | 15:00 | 3    | slight      |
| Kodak 100Tmax           | 100/21° | 10:30   | 15:30 | 2    | 4 | +130 | 125/22° | 24/75 | 15:30 | 3    | very low    |
| Kodak 400 TriX          | 250/25° | 11:30   | 17:00 | 2    |   |      |         | 24/75 |       |      | very high   |
| Kodak 400 TMY2          | 500/28  | 11:00   | 16:30 | 2    | 4 | +130 | 640/29° | 24    | 17:00 | 4    | high        |
| Rollei Pan25            | 20/14°  | 12:00   | 17:45 | 3    | F | +130 | 25/15°  | 24/75 | 17:00 | 6    | very high   |
| Rollei IR820/400        | 250/25° | 15:00   |       | 2    |   | +50  | 400/27° | 24/75 | 12:00 | 2    | low         |
| Rollei Retro 100 135/36 | 200/24° | 14:00   | 20:00 | 3    | F | +130 | 250/25° | 24/75 | 20:00 | 6    | low         |
| Rollei Retro 100 120    | 100/21  | 13:00   | 19:00 | 3    |   |      |         | 24/75 |       |      | low         |
| Rollei Retro 400        | 250/25° | 12:00   | 17:30 | 2    |   | +60  | 400/27° | 24/75 | 12:00 | 6    | very high   |

For tray development of sheet films, nominal speed (Tmax400 10min) can be reached at 22°C by four inversions each 15 seconds, or in some cases even doubled (Tmax100@200 12min).

Please use the development time- calculator at <a href="www.moersch-photochemie.com/daten/daten.htm">www.moersch-photochemie.com/daten/daten.htm</a> for adjusting the duration at different temperatures.

On some films stain and basic fog are very high. In such cases the stop-bath can be prepared at 2% or an acidic fixing bath can be used. A reduction of stain with expanded time in stop-bath is possible. Washing 5-8 minutes