



## The Massive Development Chart

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| Film            | Developer             | Dilution | ISO      | 35mm | 120   | Sheet | Temp | Notes                   |
|-----------------|-----------------------|----------|----------|------|-------|-------|------|-------------------------|
| Rollei Infrared | D-76                  | stock    | 400 (25) | 6    | 6     | 6     | 20C  | <a href="#">[notes]</a> |
| Rollei Infrared | Diafine               | stock    | 400      | 3+3  |       |       | 22C  | <a href="#">[notes]</a> |
| Rollei Infrared | F76+                  | 1+19     | 400      | 10   |       |       | 22C  | <a href="#">[notes]</a> |
| Rollei Infrared | HC-110                | B        | 400 (12) |      | 8:45  |       | 20C  | <a href="#">[notes]</a> |
| Rollei Infrared | ID-11                 | stock    | 400 (25) | 6    | 6     | 6     | 20C  | <a href="#">[notes]</a> |
| Rollei Infrared | Ilfosol S             | 1+9      | 400 (12) |      | 7:30  |       | 20C  | <a href="#">[notes]</a> |
| Rollei Infrared | PMK                   | 2+4+100  | 6-8      | 7:30 | 7:30  |       | 21C  | <a href="#">[notes]</a> |
| Rollei Infrared | PMK                   | 1+2+100  | 12       |      | 12    |       | 24C  | <a href="#">[notes]</a> |
| Rollei Infrared | Rodinal               | 1+25     | 400 (25) | 7:30 | 7:30  | 7:30  | 20C  | <a href="#">[notes]</a> |
| Rollei Infrared | Rodinal               | 1+50     | 400 (25) | 12   | 12    | 12    | 20C  | <a href="#">[notes]</a> |
| Rollei Infrared | Rollei RHS High Speed | 1+7      | 400 (25) | 6    | 6     | 6     | 20C  | <a href="#">[notes]</a> |
| Rollei Infrared | Rollei RHS High Speed | 1+12     | 400 (25) | 8:30 | 8:30  | 8:30  | 20C  | <a href="#">[notes]</a> |
| Rollei Infrared | Rollei RLS Low Speed  | 1+4      | 400 (25) | 18   | 18    | 18    | 24C  | <a href="#">[notes]</a> |
| Rollei Infrared | Xtol                  | 1+3      | 400 (25) | 14   | 14    | 14    | 20C  | <a href="#">[notes]</a> |
| Rollei Ortho 25 | D-76                  | stock    | 25       | 6    | 6     | 6     | 20C  |                         |
| Rollei Ortho 25 | ID-11                 | stock    | 25       | 6    | 6     | 6     | 20C  |                         |
| Rollei Ortho 25 | Rodinal               | 1+25     | 25       | 4    | 4     | 4     | 20C  |                         |
| Rollei Ortho 25 | Rodinal               | 1+50     | 25       | 6    | 6     | 6     | 20C  |                         |
| Rollei Ortho 25 | Rodinal               | 1+50     | 25       | 10   |       |       | 21C  |                         |
| Rollei Ortho 25 | Rollei RHS High Speed | 1+7      | 25       | 6    | 6     | 6     | 20C  |                         |
| Rollei Ortho 25 | Rollei RHS High Speed | 1+12     | 25       | 8:30 | 8:30  | 8:30  | 20C  |                         |
| Rollei Ortho 25 | Rollei RLS Low Speed  | 1+4      | 25       | 12   | 12    | 12    | 24C  |                         |
| Rollei Pan 25   | Amaloco AM50          | 1+29     | 25       | 5    | 5     | 5     | 20C  |                         |
| Rollei Pan 25   | D-76                  | stock    | 25       | 5    | 5     | 5     | 20C  |                         |
| Rollei Pan 25   | HC-110                | F        | 25       |      | 13:30 |       | 20C  |                         |
| Rollei Pan 25   | ID-11                 | stock    | 25       | 5    | 5     | 5     | 20C  |                         |
| Rollei Pan 25   | Ilfosol S             | 1+9      | 25       | 3.5  |       |       | 24C  |                         |
| Rollei Pan 25   | Rodinal               | 1+25     | 25       | 6    | 6     | 6     | 20C  |                         |

| Film          | Developer             | Dilution | ISO  | 35 mm | 120 | Sheet | Temp | Notes                   |
|---------------|-----------------------|----------|------|-------|-----|-------|------|-------------------------|
| Rollei Pan 25 | Rodinal               | 1+50     | 25   | 11    | 11  | 11    | 20C  |                         |
| Rollei Pan 25 | Rodinal               | 1+100    | 25   | 20    |     |       | 20C  | <a href="#">[notes]</a> |
| Rollei Pan 25 | Rollei RHS High Speed | 1+7      | 25   | 5     | 5   | 5     | 20C  |                         |
| Rollei Pan 25 | Rollei RHS High Speed | 1+12     | 25   | 7     | 7   | 7     | 20C  |                         |
| Rollei Pan 25 | Rollei RLS Low Speed  | 1+4      | 25   | 10    | 10  | 10    | 24C  |                         |
| Rollei Pan 25 | Xtol                  | stock    | 25   | 6:30  |     |       | 20C  |                         |
| Rollei R3     | D-76                  | stock    | 100  |       | 7   |       | 20C  |                         |
| Rollei R3     | D-76                  | stock    | 200  | 10    |     |       | 20C  |                         |
| Rollei R3     | D-76                  | stock    | 400  | 14    |     |       | 20C  |                         |
| Rollei R3     | HC-110                | B        | 400  | 14    |     |       | 20C  |                         |
| Rollei R3     | HC-110                | B        | 640  |       | 16  |       | 20C  |                         |
| Rollei R3     | ID-11                 | stock    | 100  |       | 7   |       | 20C  |                         |
| Rollei R3     | ID-11                 | stock    | 200  | 10    |     |       | 20C  |                         |
| Rollei R3     | ID-11                 | stock    | 400  | 14    |     |       | 20C  |                         |
| Rollei R3     | Microphen             | stock    | 100  | 9:30  |     |       | 20C  |                         |
| Rollei R3     | Microphen             | 1+1      | 400  | 13-14 |     |       | 24C  | <a href="#">[notes]</a> |
| Rollei R3     | Perceptol             | stock    | 200  | 14    |     |       | 20C  |                         |
| Rollei R3     | Promicrol             | 1+9      | 400  | 10    |     |       | 20C  |                         |
| Rollei R3     | Promicrol             | 1+9      | 400  | 6:30  |     |       | 24C  |                         |
| Rollei R3     | Promicrol             | 1+14     | 400  | 14    |     |       | 20C  |                         |
| Rollei R3     | Promicrol             | 1+14     | 400  | 10    |     |       | 24C  |                         |
| Rollei R3     | Promicrol             | 1+9      | 1600 | 14    |     |       | 20C  |                         |
| Rollei R3     | Promicrol             | 1+9      | 1600 | 9:30  |     |       | 24C  |                         |
| Rollei R3     | Promicrol             | 1+14     | 1600 | 21    |     |       | 20C  |                         |
| Rollei R3     | Promicrol             | 1+14     | 1600 | 15    |     |       | 24C  |                         |
| Rollei R3     | Rollei RHS High Speed | 1+7      | 100  | 13    |     |       | 20C  |                         |
| Rollei R3     | Rollei RHS High Speed | 1+7      | 200  | 14    |     |       | 20C  |                         |
| Rollei R3     | Rollei RHS High Speed | 1+7      | 400  | 14    |     |       | 20C  |                         |
| Rollei R3     | Rollei RHS High Speed | 1+7      | 800  | 18    |     |       | 20C  |                         |
| Rollei R3     | Rollei RHS High Speed | 1+7      | 1600 | 22    |     |       | 20C  |                         |
| Rollei R3     | Rollei RHS High Speed | 1+7      | 3200 | 26    |     |       | 20C  |                         |
| Rollei R3     | Rollei RHS High Speed | 1+7      | 6400 | 32    |     |       | 20C  |                         |
| Rollei R3     | Rollei RLS Low Speed  | 1+4      | 25   | 22    |     |       | 24C  |                         |
| Rollei R3     | Rollei RLS Low Speed  | 1+4      | 50   | 23    |     |       | 24C  |                         |
| Rollei R3     | Rollei RLS Low Speed  | 1+4      | 100  | 24    |     |       | 24C  |                         |

| Film             | Developer               | Dilution | ISO     | 35mm  | 120 | Sheet | Temp | Notes |
|------------------|-------------------------|----------|---------|-------|-----|-------|------|-------|
| Rollei R3        | Rollei RLS Low Speed    | 1+4      | 200     | 25    |     |       | 24C  |       |
| Rollei R3        | Xtol                    | 1+2      | 200-400 | 24-29 |     |       | 20C  |       |
| Rollei Retro 100 | Rollei RHS High Speed   | 1 + 7    | 100     | 5     |     |       | 20C  |       |
| Rollei Retro 100 | Rollei RHS High Speed   | 1 + 9    | 100     | 5:30  |     |       | 20C  |       |
| Rollei Retro 100 | Rollei RHS High Speed   | 1 + 15   | 100     | 8     |     |       | 20C  |       |
| Rollei Retro 100 | Rollei RHS High Speed   | 1 + 7    | 200     | 6     |     |       | 20C  |       |
| Rollei Retro 100 | Rollei RHS High Speed   | 1 + 9    | 200     | 6:45  |     |       | 20C  |       |
| Rollei Retro 100 | Rollei RHS High Speed   | 1 + 15   | 200     | 9:30  |     |       | 20C  |       |
| Rollei Retro 100 | Rollei RLS Low Speed    | 1 + 4    | 50      | 12    |     |       | 24C  |       |
| Rollei Retro 100 | Rollei RLS Low Speed    | 1 + 4    | 100     | 13    |     |       | 24C  |       |
| Rollei Retro 100 | Rollei RLC Low Contrast | 1 + 4    | 50      | 7:30  |     |       | 20C  |       |
| Rollei Retro 100 | Rollei RLC Low Contrast | 1 + 4    | 100     | 8:30  |     |       | 20C  |       |
| Rollei Retro 100 | Rodinal                 | 1 + 25   | 100     | 5     |     |       | 20C  |       |
| Rollei Retro 100 | Rodinal                 | 1 + 50   | 100     | 10    |     |       | 20C  |       |
| Rollei Retro 100 | D76                     | stock    | 100     | 9     |     |       | 20C  |       |
| Rollei Retro 400 | Rollei RHS High Speed   | 1 + 7    | 400     | 6     |     |       | 20C  |       |
| Rollei Retro 400 | Rollei RHS High Speed   | 1 + 9    | 400     | 6:45  |     |       | 20C  |       |
| Rollei Retro 400 | Rollei RHS High Speed   | 1 + 15   | 400     | 9:30  |     |       | 20C  |       |
| Rollei Retro 400 | Rollei RHS High Speed   | 1 + 7    | 800     | 8     |     |       | 20C  |       |
| Rollei Retro 400 | Rollei RHS High Speed   | 1 + 9    | 200     | 9     |     |       | 20C  |       |
| Rollei Retro 400 | Rollei RHS High Speed   | 1 + 15   | 200     | 13    |     |       | 20C  |       |
| Rollei Retro 400 | Rollei RLS Low Speed    | 1 + 4    | 200     | 12    |     |       | 24C  |       |
| Rollei Retro 400 | Rollei RLS Low Speed    | 1 + 4    | 400     | 13    |     |       | 24C  |       |
| Rollei Retro 400 | Rollei RLC Low Contrast | 1 + 4    | 200     | 7:30  |     |       | 20C  |       |
| Rollei Retro 400 | Rollei RLC Low Contrast | 1 + 4    | 400     | 8:30  |     |       | 20C  |       |
| Rollei Retro 400 | Rodinal                 | 1 + 25   | 400     | 7:50  |     |       | 20C  |       |
| Rollei Retro 400 | Rodinal                 | 1 + 50   | 400     | 11:50 |     |       | 20C  |       |
| Rollei Retro 400 | D76                     | stock    | 400     | 9     |     |       | 20C  |       |

For further information please contact MACO. Presoaking of 30 seconds is recommended. Times in minutes. Inverting cycles of 30 sec. Setting up times for medium contrast. Stock solution is the working strength developer without additional dilution. For a product such as D-76 which is made from powder, you typically mix the powder into a "stock" solution, which can then be used as is, or can be diluted further (eg. 1+1). Liquid concentrate developers, such as Rodinal, are *always* diluted before use. These developers do not have a stock solution.

We thank digitatlruth photo for the kindly provided development charts!