

# ILFORD FILM/PROCESSING CHART (@20 )

|                                | ILFORD DEVELOPER |              |           |     |           |      |         |     |      |      |                |      |        |     | OTHER MANUFACTURER'S DEVELOPER |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|--------------------------------|------------------|--------------|-----------|-----|-----------|------|---------|-----|------|------|----------------|------|--------|-----|--------------------------------|---------|----------|-------|-------|------------|--------|---------|-----|----|------|-----|----|----|----|--|
|                                | ID-11 (D-76)     |              | MICROPHEN |     | PERCEPTOL |      | ILFOSOL |     | PQ   |      | PLUS DEVELOPER |      | HC 110 |     | T-Max                          | TETENAL | ULTRAFIN | ACUTO | AUSPE | AGFA RODIN | REFINA | MICRO X |     |    |      |     |    |    |    |  |
|                                | 1+1              | 1+3          | 1+1       | 1+3 | 1+1       | 1+3  | 1+1     | 1+3 | 1+9  | 1+14 | 1+9            | 1+1  | 1+2    | A   | B                              | 1+4     | 1+10     | 1+20  | 1+10  | 1+25       | 1+50   | 1+1     | 1+3 |    |      |     |    |    |    |  |
| <b>ILFORD ISD(ASA)</b>         |                  |              |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| PAN F PLUS<br>ISO 50/18        | 12               | 4            |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 25               | 6.5          | 8.5       | 14  | 4.5       | 6    | 11      | 9   | 10.5 | 15   |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 50               | 6.5          | 8.5       | 15  | 4.5       | 6    | 11      | 14  | 15   | 17   | 4              | 6    | 3.5    | 4   | 5.5                            | 4       | 4        | 4     | 8     | 10.5       | 6      | 11      | 5.5 | 15 | 18   |     |    |    |    |  |
|                                | 100              | 10           |           |     | 8         |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| 200                            | 12               |              |           |     | 12        |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| FP4 PLUS<br>ISO 125/22         | 50               | 5            | 7         | 15  |           |      |         | 7.5 | 10.5 | 14.5 | 3.5            | 5    |        |     | 4.5                            | 6       |          |       | 4     |            | 3.5    |         |     | 5  | 6    | 7.5 | 14 |    |    |  |
|                                | 125              | 6            | 8         | 18  | 5.5       | 7    | 10      | 9   | 14   | 18   | 4              | 6    | 3      | 3   | 6                              | 8       | 3        | 5     | 4.5   | 4          | 7.5    | 8       | 10  | 6  | 8.5  | 4   | 10 | 12 | 17 |  |
|                                | 200              | 8            | 12        |     | 6.5       | 9    | 13      |     |      |      | 5              | 7.5  | 5      | 4   | 8.5                            | 12      | 4        |       | 6     | 6          | 12     |         |     | 9  | 13   | 6   |    |    |    |  |
|                                | 400              | 12           |           |     | 11        | 16   |         |     |      |      | 8              |      | 7      | 7   | 13                             |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| 800                            |                  |              |           | 15  |           |      |         |     |      |      |                | 10   | 10     |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| HP5 PLUS<br>ISO 400/27         | 50               | 4            | 5.5       | 8   |           |      |         | 9   | 13   | 18   |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 100              | 5            | 7         | 11  |           |      |         | 9   | 14   | 20   | 3              | 4.5  |        |     | 3                              | 4       |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 200              | 6            | 9         | 14  |           |      |         | 11  | 14   | 21   |                |      |        |     | 5                              | 7       |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 400              | 7.5          | 13        | 20  | 6.5       | 12   | 23      | 11  | 15   | 25   | 7              | 9.5  | 3.5    | 3.5 | 6.5                            | 9       | 2.5      | 5     | 6.5   | 7.5        | 16     | 7       | 7   | 6  | 11   | 6   | 10 | 14 |    |  |
|                                | 800              | 10.5         | 16.5      |     | 8         | 15   |         |     |      |      |                |      | 5      | 5   | 9.5                            |         | 3.75     | 7.5   | 8     | 10         |        |         |     | 8  |      | 8.5 |    |    |    |  |
|                                | 1600             | 14           |           |     | 11        |      |         |     |      |      |                |      | 7.5    | 7.5 | 14                             |         | 5.5      | 11    | 9.5   |            |        |         |     |    |      |     |    |    |    |  |
| 3200                           |                  |              |           | 16  |           |      |         |     |      |      |                | 11   |        |     | 9.5                            |         |          | 11.5  |       |            |        |         |     |    |      |     |    |    |    |  |
| 100 DELTA<br>PRO<br>ISO 100/21 | 50               | 7            | 10        | 15  |           |      |         | 12  | 13   | 16   | 4.5            | 6.5  |        |     | 5                              | 5.5     |          |       |       |            |        |         | 7   | 9  |      | 12  |    | 16 |    |  |
|                                | 100              | 8.5          | 11        | 20  | 6.5       | 10   | 14      | 15  | 17   | 22   | 6              | 10   |        |     | 6                              | 7.5     |          |       | 6     | 7          | 6      | 8       | 8   |    | 9    | 14  | 5  | 15 | 22 |  |
|                                | 200              | 10.5         | 13        |     | 10.5      | 14   | 20      |     |      |      |                |      |        |     | 8                              | 10      |          |       |       |            |        |         |     |    | 9    |     |    |    |    |  |
|                                | 400              | 15           |           |     | 15        |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    | 9    |     |    |    |    |  |
| 400 DELTA<br>PRO<br>ISO 400/27 | 200              | 6            | 9         |     |           |      |         | 10  | 14   |      | 7              | 11.5 |        |     | 6                              |         |          |       | 6     |            | 7.5    |         | 7   | 7  | 12   |     |    |    |    |  |
|                                | 400              | 7            | 10.5      | 18  | 7         | 10.5 | 17      | 13  | 18   | 22   | 9              | 14   |        |     | 3.5                            | 7.5     | 13       | 3.5   | 7.5   | 7.5        | 9.5    | 11.5    | 8.5 | 9  | 16.5 | 5   |    |    |    |  |
|                                | 800              | 9            | 12.5      |     | 9         | 13   |         |     |      |      |                |      |        |     | 5                              | 10      |          | 5     | 10    | 10         |        |         | 11  |    | 12.5 | 7   |    |    |    |  |
|                                | 1600             | 12.5         |           |     | 12.5      | 18   |         |     |      |      |                |      |        |     | 8                              | 14      |          | 8     | 14    | 14         |        |         |     |    |      |     |    |    |    |  |
| XP2                            | 50-800           | Process C-41 |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| <b>KODAK</b>                   |                  |              |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| PANATOMIC X                    | 50               | 5            | 7         | 10  | 4         | 5    | 8.5     | 10  | 13   | 18   | 5              | 7    |        |     | 3.5                            | 5       |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| PLUS-X                         | 125              | 6            | 8         | 12  | 5         | 7    | 12      | 8   | 10   | 15   | 5.5            | 7    | 3.5    | 3.5 | 5.5                            | 8       |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| TRI-X                          | 200              |              |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 400              | 8            | 13        |     | 6         | 11   |         | 11  | 14   | 25   | 7              | 9.5  | 3.5    | 3.5 | 6.5                            | 9       |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 800              | 12           |           |     | 8         |      |         |     |      |      |                |      |        |     | 5                              | 9.5     |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 1600             |              |           |     | 10.5      |      |         |     |      |      |                |      |        |     | 7                              | 14      |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 3200             |              |           |     | 14        |      |         |     |      |      |                |      |        |     | 11                             |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| T-MAX 100                      | 50               |              |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 100              | 9            | 12        |     | 5         | 8.5  | 15      | 9.5 | 13   |      | 6              | 11   | 5      | 5   | 7                              | 12      |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 200              | 9            |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 400              | 11           |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| T-MAX 400                      | 200              |              |           |     |           |      |         |     |      | 8    |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 400              | 8            | 12.5      |     | 4         | 7    |         | 8   | 11   |      | 9              | 12   | 4.5    | 4.5 | 6                              | 11      |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 800              | 9            |           |     | 7         |      |         |     |      |      |                |      |        | 5   | 7                              |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 1600             | 11           |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| T-MAX P-3200                   | 800              |              |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
|                                | 3200             | 13.5         | 20        |     | 11        | 18   |         | 16  | 22   |      | 14             |      | 7      | 7   | 13                             |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| <b>AGFA</b>                    |                  |              |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| AGFA PAN                       | 25               | 4            | 6.5       | 8.5 | 5         | 6.5  | 10      | 11  | 13   | 18   |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| AGFAPAN APX                    | 100              | 5            | 8         | 11  | 7         | 9.5  | 13      | 8.5 | 10   | 15   |                |      |        | 3   | 5                              |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| AGPAN AP                       | 400              | 5.5          | 9         | 13  | 8         | 13   | 20      |     |      |      |                |      |        | 3.5 | 6                              |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| <b>FUJI</b>                    |                  |              |           |     |           |      |         |     |      |      |                |      |        |     |                                |         |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| NEOPAN                         | 100              | 8            |           |     |           |      |         |     |      |      |                |      |        |     | 3                              | 5       |          |       |       |            |        |         |     |    |      |     |    |    |    |  |
| NEOPAN                         | 400              | 8            | 13        | 20  |           |      |         |     |      |      |                |      |        |     | 3.5                            | 6.5     |          |       |       |            |        |         |     |    |      |     |    |    |    |  |

# Processing recommendations

DEVELOPER TIMES IN MINUTES AT20 WITH INTERMITTENT AGITATION

(e.g. four inversions every minute)

| DEVELOPERS | DILUTION | PANF Plus<br>EL 50/18 | FP Plus<br>EL 125/22 | HP5 Plus<br>EL 400/27 | 100 DELTA<br>EL 100/21 | 400 DELTA<br>EL 400/27 |
|------------|----------|-----------------------|----------------------|-----------------------|------------------------|------------------------|
| PERCEPTOL  | STOCK    | 15                    | 9                    | 11                    | 15                     | 13                     |
|            | 1+1      | 12 1/2                | 14                   | 15                    | 17                     | 15                     |
|            | 1+3      | 17                    | 18                   | 25                    | 20                     | 22                     |
| PLUS       | 1+1      | N/R                   | 3                    | 3 1/2                 | N/R                    | 4                      |
|            | 1+2      | 3 1/2                 | 6                    | 6 1/2                 | 5 1/2                  | 7                      |
| ID-11      | STOCK    | 7                     | 6                    | 7 1/2                 | 7                      | 7                      |
|            | 1+1      | 10                    | 8                    | 13                    | 10                     | 10 1/2                 |
|            | 1+3      | 15                    | 18                   | 20                    | 15 1/2                 | 16 1/2                 |
| ILFOSOL S  | 1+9      | 4                     | 4                    | 7                     | 5                      | 7                      |
|            | 1+14     | 7                     | 6                    | 9 1/2                 | 6 1/2                  | 11 1/2                 |
| MICROPHEN  | STOCK    | 5 1/2                 | 5 1/2                | 6 1/2                 | 8                      | 5 1/2                  |
|            | 1+1      | 7                     | 7                    | 12                    | 9                      | 11                     |
|            | 1+3      | 10                    | 10                   | 23                    | 14                     | 20                     |

This chart refers to various combinations that will be effective in producing the Optimum Contrast of G 0.62 which give negatives suitable for printing in most enlargers.

