Black and white reversal film
(for the AGFA SCALA process)

Applications:
- Architecture
- Fashion
- Advertising
- Reporting
- Sport and stage photography
- Available-light photography
- Documentation
- Reproduction
- Duplicates of BW negatives and BW transparencies
- Long-term archiving of processed transparency material

Features:
- Superb sharpness and granularity
- Practical standard speed (ISO 200/24°)
- Variable speed (processing pushed and pulled from ISO 100/21° to ISO 1600/33°)
- Contrast matched to AGFACHROME RSX 100 (basis ISO 200/24°)
- Variable contrast (pushed/pulled processing)
- Neutral-black print tone
- Extreme image stability against environmental effects

Further applications:
- Printing original (printing direct from transparency)
- Projection
**AGFA SCALA 200x PROFESSIONAL**

**Speed**

With the standard SCALA process: ISO 200/24°.

The speed of the AGFA SCALA 200x can be varied in steps by pushing or pulling the process. The contrast, maximum density and granularity simultaneously vary in comparison to the standard process.

<table>
<thead>
<tr>
<th>Step</th>
<th>Push 1</th>
<th>Push 2</th>
<th>Push 3</th>
<th>Pull 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed (ISO)</td>
<td>400/27°</td>
<td>800/30°</td>
<td>1600/33°</td>
<td>100/21°</td>
</tr>
<tr>
<td>Contrast</td>
<td>increasingly steeper</td>
<td>flatter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum density</td>
<td>decreasing</td>
<td>increasing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Granularity</td>
<td>increasingly coarse-grained</td>
<td>finer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Applications**

Varying the speed and the contrast is useful in many fields.

**Pushed processing**

a) To increase the speed:
   - with poor lighting / available light
   - with lenses with long focal lengths and / or low power
   - with fast-moving subjects

b) To steepen the contrast:
   - for dramatic effects

**Pulled processing**

a) To decrease the speed:
   - for higher maximum density
   - for finer granularity ( - 10 % at ISO 100/21°)

b) To flatten the contrast:
   - for reproductions of X-rays
   - for duplicates of BW negatives and original SCALA transparencies

**Density curve**

![Density curve](image)

**Contrast/maximum density with pushed/pulled processing**

![Contrast/maximum density](image)

**Sharpness**

Modulation transfer function (MTF)

Densitometry: visual filter

Exposure: daylight

Reference: ISO 200/24°

![Sharpness](image)

**Spectral sensitivity**

(related to equal-energy spectrum)

![Spectral sensitivity](image)
Anti-halo layer
35 mm: Clear base with AHU layer which is decolorised in the developer.
Roll and sheet film: AHU layer and dark green gelatine back which is also decolorised in the developer.

Resolving power (reference: ISO 200/24°)
Contrast 1000:1 120 lines/mm
Contrast 1,6:1 50 lines/mm

Granularity (reference: ISO 200/24 °)
Diffuse RMS granularity (x 1000) = 11
(only in SCALA process)
Measured at diffuse density of 1.0 and with visual filter (V.) with a 48 μm aperture. This value is equivalent to a 12-fold magnification.

Reciprocity effect
<table>
<thead>
<tr>
<th>Measured exposure time (s)</th>
<th>1/10000</th>
<th>to ½</th>
<th>1</th>
<th>10</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure correction (f-stops)</td>
<td>none</td>
<td>+ ½</td>
<td>+ 1</td>
<td>+ 2</td>
<td></td>
</tr>
</tbody>
</table>

Exposure latitude
The exposure latitude depends on the speed chosen.
ISO 200/24° to ISO 1600/33° ± ½ stop
ISO 100/21° ± 1 stop

Emulsion design
Film base: safety film (acetyl cellulose) to DIN 15551
Thickness:
35 mm film: 120 μm
Rollfilm: 95 μm
Sheet film (polyester base): 175 μm
On the roll and sheet films there is an extra NC layer on the backs.
1. Retouchable gelatine supercoat
2. Emulsion layer
3. AHU layer
4. Film base
5. Retouchable gelatine backing (roll and sheet films)
Total thickness: 12 μm

Further instructions
Filters
For the AGFA SCALA 200x PROFESSIONAL all the standard correction filters can be used. Examples:
- a yellow filter for contrasty cloud rendition
- an orange filter for clear distant views
- a red filter for a dramatic atmosphere
To compensate the loss of speed caused by contrast filters, the relevant lengthening factors given by the filter manufacturers must be applied.

DX code
Cartridge bar code:

Notching of the sheet films

Margin marks
For all versions: film type and emulsion number.
Frame numbering
- On 35 mm film
  After two blank frames consecutive numbering starting with 1, 1A up to 36A
- On rollfilm
  Consecutive frame numbering on bottom film margin from 1 to 12 top film margin from 41 to 61

Processing
The SCALA films can be processed only by professional labs offering the special SCALA process. Roll and sheet films can be retouched on both sides.

Image stability
The AGFA SCALA 200x emulsions are designed to produce especially stable images with the new SCALA process (which is installed in all authorised SCALA labs). The system is the crucial factor: the SCALA emulsion and the original SCALA process – this is the only combination that will ensure the significantly enhanced image stability.

Storage
Unexposed films should be kept cool and dry in the original pack (temperatures below +20 °C). Deep freezing (below -10 °C) can keep the photographic properties stable for a lengthy period. Cold-stored films should be left for about two hours to come up to room temperature before opening the original pack. Otherwise condensation will form on the film.
Process exposed films as soon as possible. If exposed films are stored for some time, they may suffer a loss in speed caused by fading of the latent image – particularly in adverse climatic conditions.

Versions
135-36 MP5* / 120 MP5* / 10.2 x 12.7 cm (10 sheets)
* 5-film multi-pack

Note:
The information given here is based on the evaluation of typical products at the time when this technical data was printed. Slight variations are possible, due to production tolerances. Agfa-Gevaert make every effort to improve their products, and therefore reserve the right to change product specification as necessary. Agfa, the Agfa rhombus, AGFACHROME and SCALA are registered trademarks of Agfa-Gevaert AG, Leverkusen, Germany.
List of the SCALA lab addresses

Argentina
Novella Center S. A.
Dr. Emilio Ravignani 1370
Capital Federal 1414
Buenos Aires
Fax +54-11-4772-8549

Austria
Icon Communications
7 Ridge Street
North Sydney NSW 2060
Tel. +61-2-99 57 51 53
Fax +61-2-99 59 50 84

Austria
Fachlabor Fayer
Opmerring 6
1010 Vienna
Tel. +43-1-5 12 81 11
Fax +43-1-5 13 78 33
E-mail: foto@fayer.co.at
WWW: http://www.fayer.co.at

Belgium
Lime Light Laboratory S.P.R.L.
Rue Gachard 77
1000 Brussels
Tel. +32-2-6 46 06 06
Fax +32-2-6 41 90 06

Canada
Toronto Image Works
80 Spadina Ave., Suite 207
Toronto, Ontario, M5V 2J4
Tel. +1-416-7 03 19 99
Fax +1-416-7 03 76 59
E-mail: TIZ@astral.magic.ca
WWW: http://www.magic.ca/tiz/

Denmark
Black and White Professionelt Laboratorie ApS
Borgergade 2
1300 København K
Tel. +45-33-93 42 11
Fax +45-33-15 11 15

France
Arka Laboratoire
52, Rue Notre Dame des Champs
75006 Paris
Tel. +33-1-43 25 79 72
Fax +33-1-43 25 20 69

Germany
Fachlabor Dormoelgen
Kleiner Kielort 6 – 8
20144 Hamburg
Tel. +49-40- 4 14 61 60
Fax +49-40-41 46 16 44

Oschatz Visuelle Medieng GmbH & Co. KG
Postfach 45 40
65035 Wiesbaden
Hausenstrasenr. 19
65189 Wiesbaden
Tel. +49-611-77 80 00
Fax +49-611-77 80 60

Technical Data P-12-F
Date: 04/1999
5th edition

Agfa-Gevaert AG
Anwendungstechnik Foto
Postfach 10 01 60
D-51301 Leverkusen

Internet: http://www.agfaphoto.com

Studio 13 GmbH
Postfach 23 02 40
70622 Stuttgart
Heilbronner Str. 3
70771 Leinf.-Echterdingen
Tel. +49-711- 79 08 40
Fax +49-711- 79 08 84

Fachlabor Daschner
Claude-Lorraine-Str. 27
81545 München
Tel. +49-89-6 51 51 60
Fax +49-89- 65 40 71

Harz Bildetechnik
Vogelsangweg 39
40470 Düsseldorf
Tel. +49-211-6 35 90
Fax +49-211-6 35 92 41
ISDN +49-211-9 08 11 88

Great Britain
Joe’s Basement
Photographic Service
247-257 Euston Road
London NW1 2BU
Tel. +44-171-3 88 32 10
Fax +44-171-5 40 30 00

Acceptance point:
Joe’s Basement
Photographic Service
89-91 Wardour Street
Soho London WIV 4 AF
Tel. +44-171-1 34 93 13
Fax +44-171-1 58 40 55

Acceptance point:
KJP
No. 8, Arundel Street
Manchester M14 5JZ
Tel. +44-161-8 32 49 57

Greece
X. & TH. Tsoukias O.E.
Black & White Lab
Etoias & Haidariou
115 23 Athens
Tel. +30-1-6 42 24 54
Fax +30-1-6 42 24 54

Italy
Chrome
Laboratorio Fotocolorare Professionale
Via San Sovino 30
20133 Milano
Tel. +39-2- 2 66 41 75
Fax +39-2- 2 66 69 35

Il Colore
Via G. Perrier 19
00157 Roma
Tel. +39-6-41 18 15 03
Fax +39-6-41 73 29 56

Vero colore
Via Benedetto Marcello 9/11
20092 Cinisello Balsamo (Milano)
Tel. +39-2-66 01 45 57
Fax +39-2-66 01 26 08

Japan
Kindai Color
1-21-13 Takadanobaba
Hirokoe Building
Shinjuku-Ku
Tokyo 169
Tel. +81-3-32 00 85 51
Fax +81-3-32 08 82 94

Netherlands
’S Color Amsterdam bv
Singel 356
1016 AG Amsterdam
Tel. +31-20-6 24 91 02
Fax +31-20-6 20 89 88
E-mail: singel@scolor.nl

Acceptance point:
’S Color hempoint bv
Nieuwe Hemweg 4a
1013 BG Amsterdam
Tel. +31-20-6 86 00 11
Fax +31-20-6 86 43 21

Acceptance point:
’S Color nieuwgein bv
Ravensade 110
3439 LD Nieuwegein
Tel. +31-28-8 84 64
Fax +31-28-8 52 89

Spain
Manual Color Equipo Professional C/ Rocafort, 215
08029 Barcelona
Tel. +34-3-4 10 34 01
Fax +34-3-4 10 86 65

Switzerland
Pro Cine Colorlabor AG
Holzmoosstrütier. 48
8820 Wädenswil
Tel. +41-1-7 83 71 11
Fax +41-1-7 80 69 41
ISDN +41-1-7 83 11 30

Acceptance point:
Picture Service Gwerder
Sihlquai 74
8031 Zürich
Tel. +41-1-7 1 77 77 22
Fax +41-1-7 1 77 77 25
ISDN +41-1-4 40 45 45
WWW: http://www.gwerder.ch
E-mail: info@gwerder.ch

Acceptance point:
PPP Professional Photo Processing SA
Z.1, le Trési 9
1028 Préveranges
Tel. +41-21-8 03 20 26 (German)
or +41-21-8 03 20 20 (Francais)
Fax +41-21-8 03 11 26
ISDN +41-21-8 03 55 00

USA
Main Photo Service
827 South Main Street
Santa Ana, California 92701
Los Angeles
Tel. +1-800-4 40 MAIN
Fax +1-714-6 47 76 00
E-mail: mpms@mainphoto.com
WWW: http://www.mainphoto.com

Duggal Color Projects Inc.
9 West 20th Street
New York, NY 10011
Tel. +1-800-3 60 NYSCALEA
Fax +1-212-2 42 70 00
E-mail: only@duggal.com
WWW: http://www.duggal.com

Color Lab Miami
11 1 Northeast 21st Street
Miami, FL 33137
Tel. +1-305-5 76 32 07
Fax +1-305-5 76 15 72

Printed on oxygen-bleached paper