Special infrared film up to 820 nm. High sensitivity at ISO 400 without filtering. Excellent tonality, solving power by 160 Lp/mm. Special AURA effects by over exposing film.
The ROLLEI INFRARED is well suited for experimental, creative applications, and for scientific photography. Perfect exposures can be reached, using special infrared filters, leading into results with an unusual tonal range.

**Characteristics and application:**
- high speed panchromatic b&w film material with special infrared sensitivity;
- large exposure latitude and an high exposure reserve for application under all lighting and climatic conditions;
- special coating for improvement of film transport properties of the cameras;
- suitable for daylight and tungsten light conditions;
- table polyester base support guarantees the highest level of archive stability (LE 500);
- the large constrast power, in addition of very fine grain and excellent sharpness, is the basis for negatives of excellent quality;
- excellent resolving power, very fine grain and high sharpness as a base for negatives with an excellent quality;
- especially suited for digital application for scanning;
- special halation effects (AURA effect) by longer exposure times;

**Note:** Under careful handling, the ROLLEI IR 400 can be inserted and removed from the camera, under subdued light conditions!

**Film base:** Accurate, tear-proof clear polyester material, 100µm, 35mm, rollfilm and cut sheet film material.

**Film layer:**
- emulsion side: protective layer + emulsion layer + polyester base 100µm
- back side: NC = none curling coating

**Layer thickness:**
- w/o layers: 7.5µm
**Grain thickness:**
- RMS (x1000) 11.0 with Refinal developer, 5 Min, 20° C

**Reciprocity effect**
- Reading of exposure in sec.: 1/10,000 - 1/2
- Exposure compensation in steps: N/A
- Compensation of development time: N/A

**Characteristic diagram:**

![Characteristic diagram](image)

**Spectral sensitivity:**

![Spectral sensitivity](image)

**Storage:**
It is recommend not to leave the film material exposed into direct sunlight, strong heat or relative high humidity.

Cooled stored film material should not be used until film will be warmed up to ambient temperature.

- unexposed film: Up to 24 months in cold storage by 8° C is recommend
- exposed film: After exposure, please keep film in cold condition, processing as soon as possible is recommend

**Processing:**
The ROLLEI INFRARED must be processed in complete darkness! He can be developed sucessfully in all standard developers, such as AGFA, ILFORD, KODAK, LABOR PARTNERS or TETENAL. To achieve optimal results, a test development is recommended in order to obtain the right development times and temperatures. By using other brands of developers -not tested by MACO- decreases of quality can be expected showing rough grain structures and low sensitivity.

**Application of special infrared filters:**
- RG 715 (HELIOPAN), #88A (KODAK) real sensitivity 25/15°

In order to exclude failure photographs as source of error, it is recommended to release to each exposure row a non filtered shot with this film, exposed like a panchromatic film with a sensitivity of ISO 400/27°.

The development time chart can be found in the internet under [www.rollei.com](http://www.rollei.com).

**Packing:**

<table>
<thead>
<tr>
<th>Format</th>
<th>Size</th>
<th>Pack Content</th>
<th>Article No.</th>
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<tbody>
<tr>
<td>35mm</td>
<td>135 – 36</td>
<td>prof. pack of 10</td>
<td>R4011P</td>
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<tr>
<td>Rolffilm</td>
<td>120</td>
<td>prof. pack of 12</td>
<td>R4001P</td>
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<td>Sheet film</td>
<td>4&quot; x 5&quot;</td>
<td>25 sheets</td>
<td>R410</td>
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<td>ROLLEI photo chemistry</td>
<td>HIGH SPEED</td>
<td>1 + 7</td>
<td>RHS11</td>
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<td></td>
<td>SHORT STOP</td>
<td>1 + 16</td>
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<td>FIXIERER</td>
<td>1 + 7 – 1 + 9</td>
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<td>WETTING AGENT</td>
<td>1 + 1.000</td>
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