

Properties and Application

MACO GENIUS PRINT film is a half tone film. Excellent tonality. Robust, dimensionally stable, and archivally sound film base. Suited for pictorial and graphic application, for alternate processes like Platinum-Palladium, Gumprinting, Cyanotypie, Bromoil, etc., for experimental creative effects such as copying, solarisation, sabattier effect, bas relief, line drawings, and for pin hole camera. The clear base material allows to use the film for black-and-white transparencies. The film can be processed in all types of black-and-white developers; however, the type of developer exerts a more pronounced influence on the characteristics of the film than it does with other films.

Note: By using this transparent photographic material on the baseboard of the enlarger, a black card-board must be put under the MACO GENIUS PRINT film to avoid the reflection which softens the gradation.

Formats

Available in sizes from 6,5 x 9cm to 50,8 x 61cm (2,5" x 3,5" - 20" x 24") and rolls of 50,8cm x 10m (20" x 32½ ft.) + 101,6cm x 10m (36" x 32½ft.)

Technical Data: Overview

Sensitisation	orthochromatic
Speed	nominal speed ISO 25/15°
Base material	Polyester, 175µm clear
Resolving power	330 Lp/mm at nominal speed and a contrast of 1:1000
Archival	LE 500

Storage of Unexposed and Exposed material

As is common with photographic material, it is recommended to avoid exposure of the film to direct sunlight, intense heat (storage in a car) or high humidity.

Storage under refrigeration is possible. Films that were stored under refrigeration should be allowed to reach thermal equilibrium with the environment before being taken from the storage container. When the film is considerably colder than the ambient air, condensate may form on its surface.

Processing

MACO GENIUS PRINT film can be processed in trays, developing tanks, as well as in developing machines.

Suitable are all available photographic quality chemicals.

The recommended developers are the MACO ecoprint (Art.No. EPP11) and the Ilford PQ-Universal or equivalent ones. Dilutions are 1+4 to 1+12, in order to have influence on the gradation.

Note: In wet condition the surface is delicate and sensitive to mechanical strain. To avoid scratches, it is recommended to use the hardening developer LP-Geladur. If machine processing will be applied, check condition of transport roller.

Temperature on Processing Time

Generally, where high degree of reproducibility is required, it is recommended to process all films at the same temperature, usually 20° C (68° F). Where other temperatures must be used, the following corrections are recommended.

20° C	68.0° F	No correction
21° C	69.8° F	-5%
22° C	71.6° F	-10%
23° C	73.4° F	-15%
24° C	75.2° F	-20%
25° C	77.0° F	-30%

Stop Bath

The stop bath primarily serves to neutralise any alkalinity retained by the film in order to prevent a loss of fixing-bath due to increasing pH values. A hardening stop bath is recommended.

1 part LP-CITRODUR (Art.No. LPS41) concentrate + 16 parts water, for 1 minute

Where a stop bath is not used, two intermediate washing cycles of 30 s each, at 20° C (68° F) and permanent agitation, are recommended to avoid carryover of developer into the fixing bath.

Fixing

Lp-FIX SUPRA (Art.No. LPX21) 1+7 to 1+9, a modern high-speed fixing bath based on ammonium thiosulphate, is recommended for MACO GENIUS PRINT film. Ilford Hypam 1+4 is similarly effective.

Testing the clearing time of the fixer prior to fixing the film is recommended. To this end, use an unprocessed piece of film and stop the time between its immersion in the fixing bath and the moment when it turns completely clear. Three times this time is the fixing time. If fixing baths are re-used, the clearing time will increase with each subsequent film processed. The bath should be discarded when the clearing time reaches twice the time measured with a fresh bath.

Washing

Washing with running tap water can only be recommended where a supply temperature of approximately 20° C (68° F) can be ensured. This is not usually the case in common household systems. In such cases, cascade washing in a fixed volume of water at 20° C (68° F) is safer and saves water.

1st washing: approx. 5 minutes

Silver protection: 1 part LP-SELENIA (Art.No. LPH42) + 19 parts water, for 2 minutes (see technical application sheet LP-SELENIA).

2nd washing: approx. 5 minutes

Wetting agent

A final bath in demineralised, deionised, or distilled water (battery water) is recommended in order to avoid drying marks caused by water hardness and to reduce static charges. Static charges will cause the film to attract dust particles.

It is recommended to use LP-MASTERPROOF (Art.No. LPH11) 1+200 to 1+100 for one minute, without agitation. (This will avoid the formation of foam, see below).

Overdosing wetting agents must be avoided. Wetting-agent solutions can only be re-used if several films are processed in one session. Foam tends to stick to the film surface and will hardly run off. Avoid foam formation when preparing wetting-agent solutions by adding the water slowly. It is convenient to prepare the wetting-agent solution along with the developer. Any foam produced when preparing the solution will then have time to decay before the solution is needed.

Drying

MACO GENIUS PRINT film can be air-dried or by use of RC-dryers. Dryers for baryta (fiberbased) papers are not suited.

TA MACO GENIUS PRINT film

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Errors, or omissions regarding technical progress, remain excepted

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