

No links to other lenses

Lenses for Analog Professional Photography

Apo-Grandagon

When large format cameras are used with roll film backs, they require shorter focal length lenses. With the focal lengths of 35, 45 and 55 mm of the Apo-Grandagon lenses, photography in close spaces or panoramic views in landscape photography becomes an effortless "dynamic enjoyment".

The Apo-Grandagon ultra-wide angle lenses give you the freedom to find new and appealing views in product photography. But new standards in freedom of movement are also offered by these outstanding lenses with a useful field angle of 120° in architectural and industrial photography. The Apo-Grandagon 55 mm f/4.5 even allows photographs of, for example, wide open spaces on 4×5 in. sheet film which is most popular in demanding landscape photography.

New glass combinations (ED glasses) make possible apochromatic correction of ultra-wide angle lenses for the first time. This ensures there will be no color fringes even on high contrast building silhouettes against bright sky. With values of less than 0.5 %, distortion can be neglected.

The high maximum aperture makes adjustment easy. A large working aperture of 8-11 allows advantageous, shorter exposure times for outdoor motifs (with moving objects) or a lower flash power in the studio. For uniformly illuminated pictures without light fall-off according to the "cos⁴ law", the use of the color-neutral Rodenstock center filters is recommended.

With the Rodenstock Focus-Mount, these lenses can be fitted to panoramic or shift cameras without bellows.

For checking the adaptation to different large format camera models, we can provide you with special tables and instructions on request.



Data sheets

► [Formats, dimensions, shutter data, image circles, movement ranges](#)

► [Performance data](#)

Apo-Grandagon	Max. recommended film format
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35 mm f/4.5	6×9 cm
45 mm f/4.5	6×12 cm
55 mm f/4.5	9×12 cm / 4×5 in.

Apo-Grandagon: freedom for architecture, landscape and studio

Apo-Grandagon

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Formats, shutter sizes, dimensions, weight

Lens	Max. recommended film format	Shutter size	Push-on mount Ø	Filter thread	Rear barrel Ø	Flange focal length 1)	Overall length	Weight w/Copal
35 mm f/4.5	6×9 cm	0	70 mm	M 67 × 0.75	60.0 mm	43.2 mm	55.7 mm	300 g
45 mm f/4.5	6×12 cm	0	70 mm	M 67 × 0.75	60.0 mm	55.5 mm	65.3 mm	350 g
55 mm f/4.5	9×12 cm / 4×5 in.	0	70 mm	M 67 × 0.75	60.0 mm	67.6 mm	69.8 mm	400 g

1) With Copal shutter for scale 1:∞

Shutter data

Shutter type and size	Shutter speeds range	Manual cocking	Self cocking	Mechanical	Electronic	x-synchronized	Smallest f-stop increments	Screw thread	Lens board opening	Lens board thickness	Accessories required
Copal 0	B, T, 1/500 s ... 1 s	•	•	•	•	•		M 32.5 × 0.5	34.8 mm	1.5 ... 4.0 mm	
Copal Press 0	B, 1/125 s ... 1 s	•	•	•	•	•		M 32.5 × 0.5	34.8 mm	1.5 ... 3.0 mm	
Rollei Electron. 0	B, 1/500 s ... 30 s				•	•	1/10	M 39 × 0.75	41.8 mm	1.5 ... 3.0 mm	Control Unit

Working apertures, image angles, image circles and movement ranges

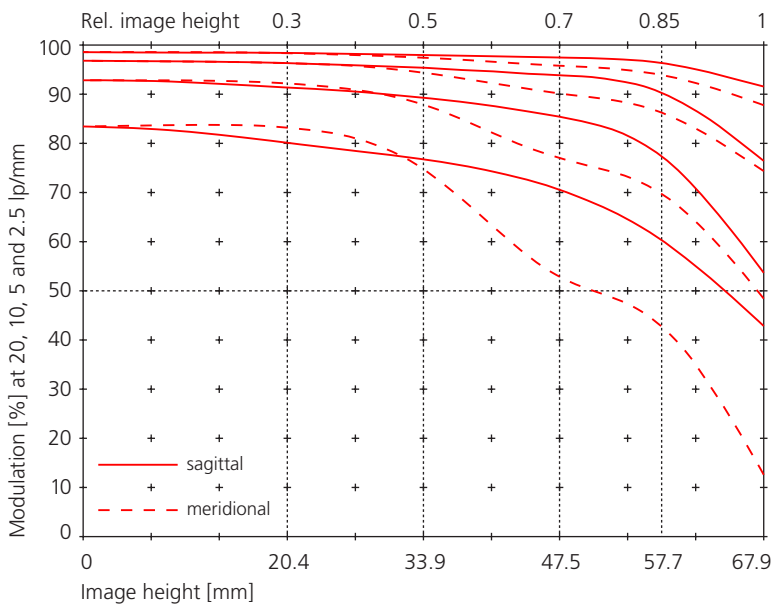
Lens	Image scale	Working f-stop	Image angle	Image circle diameter	Movement range [mm] 2) vertical/horizontal (landscape format)					
					6×7 cm	6×9 cm	6×12 cm	4×5 in.	5×7 in.	8×10 in.
35 mm f/4.5	1:∞	8-11	120°	125 mm	24 / 22	16 / 12				
45 mm f/4.5	1:∞	8-11	110°	131 mm	28 / 25	20 / 15	4 / 2			
55 mm f/4.5	1:∞	8-11	110°	163 mm	46 / 42	40 / 32	30 / 19	7 / 6		

2) These values apply to the recommended working aperture at the given scale; with increasing scale image circle and movement ranges increase

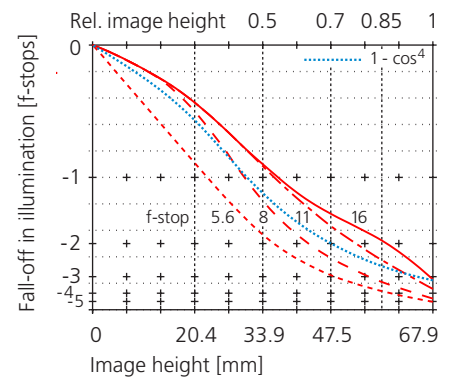
Apo-Grandagon 45 mm f/4.5

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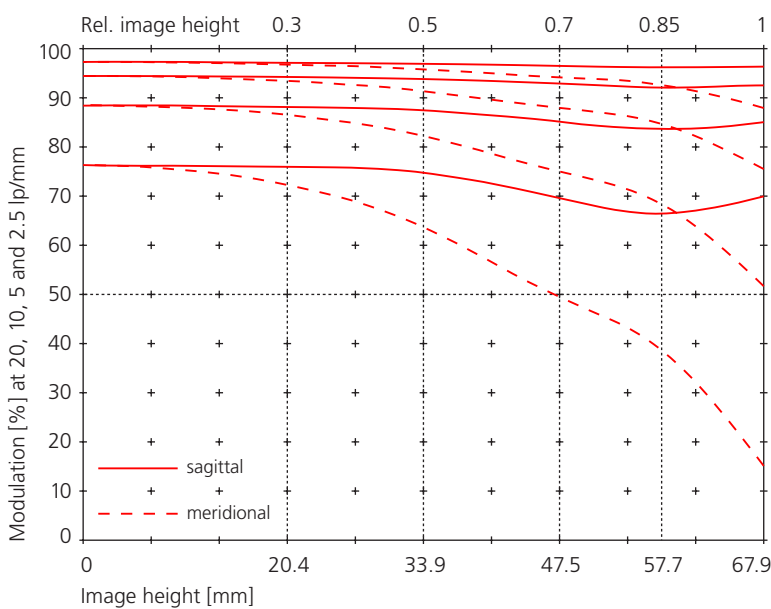
Modulation transfer function Scale 0.03x f-stop 8



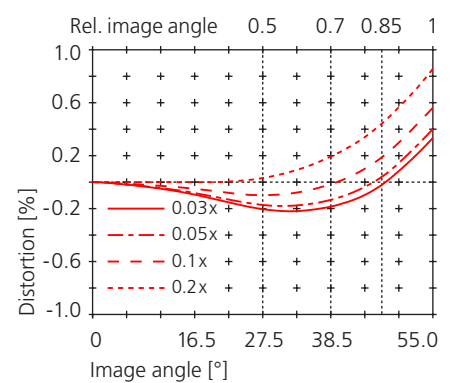
Fall-off in illumination Scale 0.03x



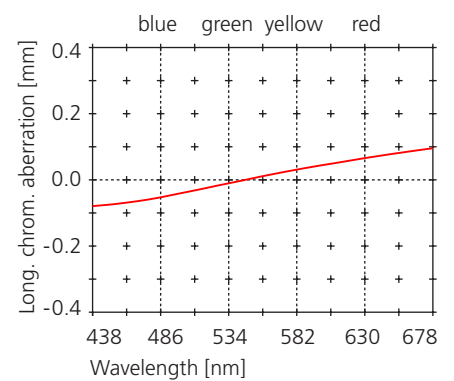
Modulation transfer function Scale 0.03x f-stop 16



Distortion Scale 0.03x ... 0.2x



Long. chrom. aberration Scale 0.03x



**All spatial frequencies [line pairs/mm],
image heights [mm] and scales
are related to the film or sensor side**