EVONIK INDUSTRIES

PLEXIGLAS® RP

High Quality Rear Projection

PLEXIGLAS®
the original from Röhm

Evonik. Power to create.

PLEXIGLAS® RP: Projection with strong contrast – even in bright environments

The Product Range

PLEXIGLAS® RP was especially developed for rear projection to ensure optimal image generation in this demanding field of application.

The base material is highly transparent PMMA with its excellent light transmission (92%). It offers very good mechanical strength, which makes the rear projection screens extremely hard-wearing.

Evonik Röhm offers three types of RP screens that are optimized for different applications.

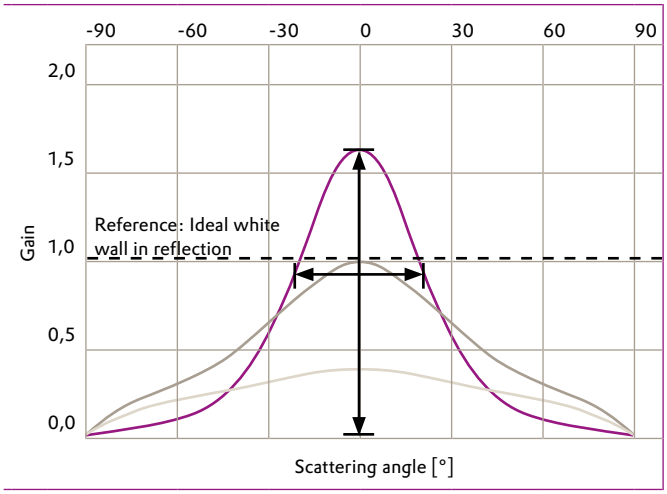
The Daylight Screen is 3mm thick and is a universal product that is suitable for every environment. It represents the ideal compromise between contrast, gain and half-gain. All this is combined with an excellent price/performance ratio and a tough configuration.

Optimized Contrast

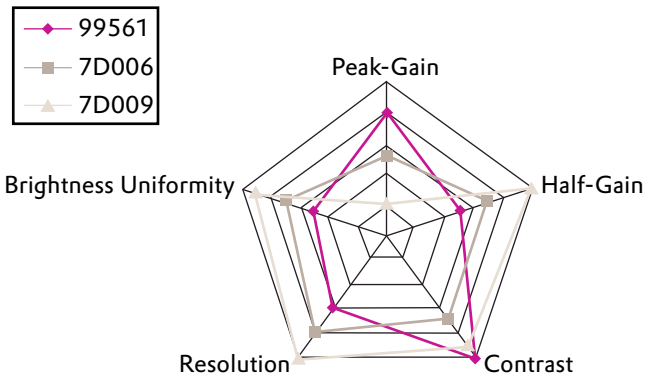
The light grey color of PLEXIGLAS® RP enables very good contrast. Any environmental light is absorbed by this color, which provides a brilliant image.

The conference room requires less darkening than usual.

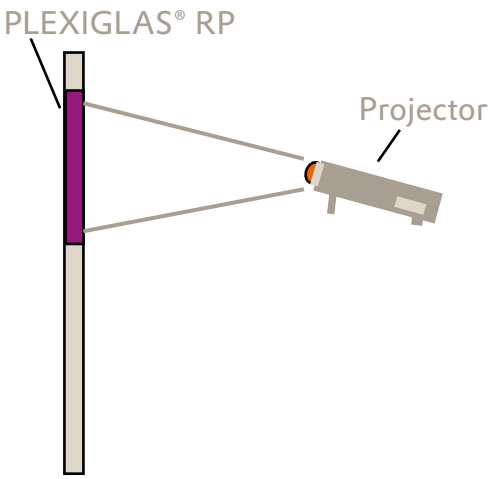
Gain chart



Daylight 99561 RP
Studio 7D006 RP
Control 7D009 RP

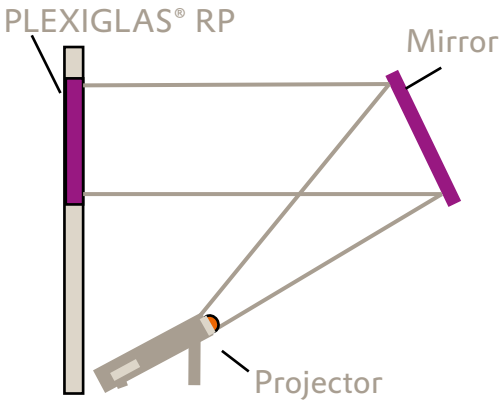


PLEXIGLAS® RP – Examples of setups



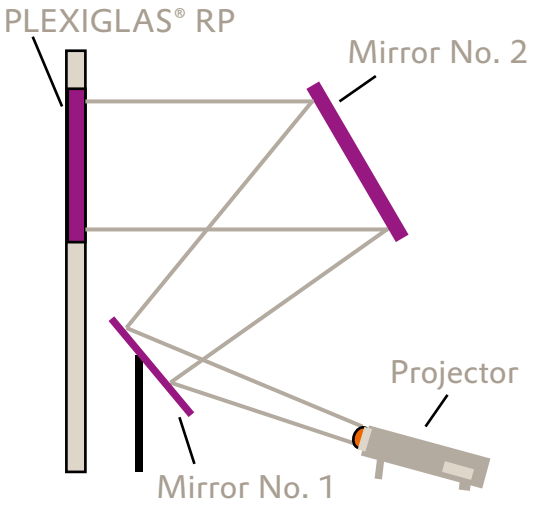
Setup using rear projection
Direct projection requires a distance of approx. 1.5 x screen diagonal between the projector and the RP screen.

This distance can be reduced to a third using wide-angle projectors with a short throw.



Rear projection in cubes, using a single-mirror light path
Cubes are also based on rear projection technology.

Besides special wide-angle light engines, the depth of the device is reduced by folding the beam path using a mirror.



Rear projection using normal lens and two mirrors
Minimization of the required space by using mirrors

By folding the projector beam using special mirrors, the space required for setup can be reduced to a minimum.

Since adjustment of the total light path is more labor-intensive, this variant is more suited to permanently installed systems.

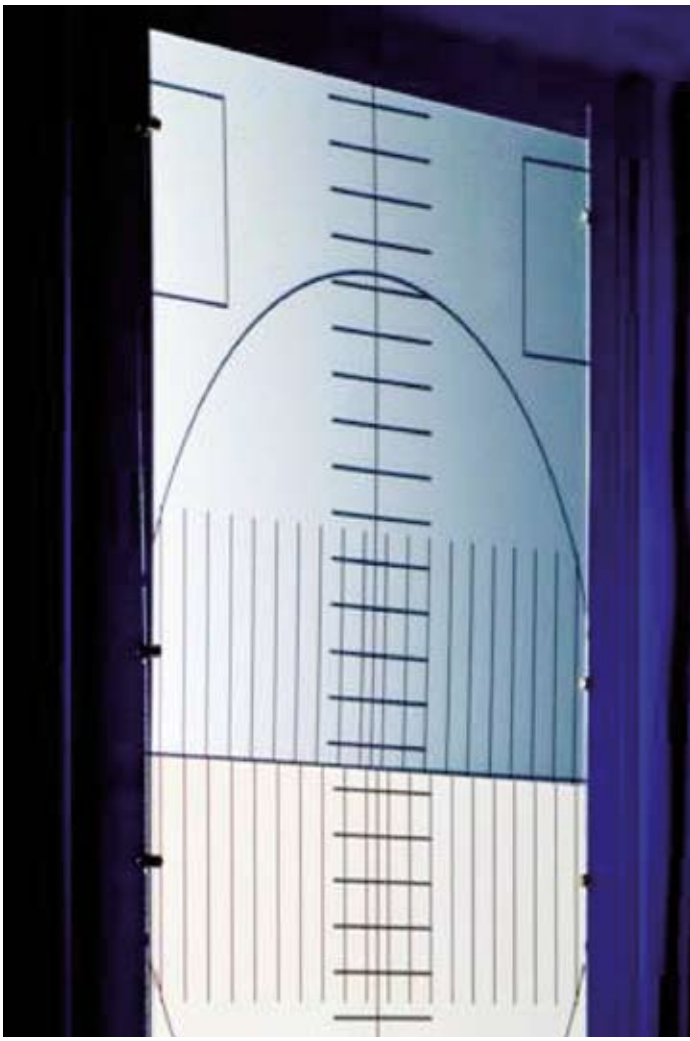
PLEXIGLAS® RP
Technical Data

Technical Data

	PLEXIGLAS® RP Daylight 99561	PLEXIGLAS® RP STUDIO 7D006	PLEXIGLAS® RP CONTROL 7D009
Standard formats	Thickness 3 mm 3050 mm × 2050 mm 6000 mm × 2050	Thickness 5 mm 2200 mm × 1600 mm	Thickness 5 mm 2200 mm × 1600 mm
Environmental light level	Daylight High contrast in bright environments	Indoor Good contrast – also in in bright environments	Daylight High contrast in bright environments
Color	Anthracite	Light Grey	Anthracite
Optical data			
Gain	1,6	1,0	0,4
Half-gain	± 24°	± 38°	± 65°
Light transmittance	42 %	45 %	24 %
Surface gloss ISO 2813		R(20°) ~ 3 R(60°) ~ 20 R(85°) ~ 20	

Further Material Data

Elastic modulus (ISO 527-2/1B/1)	3300 MPa
Tensile strength (ISO 527-2/1B/5)	72 MPa
Elongation at break (ISO 527-2/1B/5)	4,5 %
Notched impact strength (ISO 179/1eA)	1,6 kJ/m²
Charpy (ISO 179/1fu)	15 kJ/m²
Vicat softening temperature (ISO 306, B50)	105 °C
Water uptake (24h, ISO 62)	38 mg



PLEXIGLAS® RP – Professional Screens

Professional environments such as TV studios or control rooms make very stringent requirements in terms of projection contrast and homogeneity.

The quality of the image is close to that of "optical" projection screens, which are built by means of complex technologies including Fresnel lenses.

In the high-end PLEXIGLAS® RP products, highly effective light-diffusing particles are concentrated in a thin surface layer using a new production method. This enables us to manufacture high-resolution screens with very good brightness uniformity.

® = registered trademark

PLEXIGLAS is a registered trademark of Evonik Röhm GmbH, Darmstadt, Germany.

Certified to DIN EN ISO 9001 (quality) and DIN EN ISO 14001 (environment)

EVONIK INDUSTRIES

Evonik Röhm GmbH
Performance Polymers
Kirschenallee
64293 Darmstadt
Germany

info@plexiglas.net
www.plexiglas.net
www.evonik.com

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