



RD 30[®] RADIATION SHIELDING GLASS

Features

Our glass provides excellent protection against gamma and x-rays, especially developed for the mammography market.

It is a nearly clear, machine drawn glass with a low lead equivalent of 0.5 mm Pb and a thickness of 6 +/- 0.25 mm.

It is available in large dimensions: max: 2,350x1,500 mm.

It is not flammable, better scratch resistance than acrylic alternatives, low lead oxide content, less expensive than alternatives and thicker "cast" glass and acrylic solutions.

The thermally toughened RD 30[®] radiation protection glass is more robust than non-tempered radiation protection glass.

Quality product with „Made in Germany“ and DIN certification.

Environments / Applications

Mammography, protection of employees, improved observation, reassurance of patients.

Specified for analog and digital mammography.

Provides protection in a security postal scanner.

Also applied within industry, e.g. For non destructive material testing.

Variants

RD 30[®] can be thermally tempered and deformed to meet design requirements.

Individual dimensions, round machining, edge and miter cuts, holes and cut-outs in the desired sizes as customer requirements.

It can be supplied as raw material or finished component.

Insulating glass in combination with e. g. sound control or heat protection function.

Screen printing.

Specifications

RD 30[®] is the only monolithic drawn X-ray protective glass.

Evaluated sound reduction index R_w , spectrum adjustment values C and Ctr, R_w (C; Ctr) = 34 (-2; -2) dB

Density in g / cm³ (delivery condition) ≥ 3.13

Hydrolytic class according to DIN ISO 719 HGB 3

Content of lead oxide (PbO) $\geq 22\%$

Total heavy metal oxide content $\geq 23\%$

Installation, cleaning and care

Only use water, a mild detergent and a soft cloth.

RD 30[®] can be disinfected using commercially available disinfectants that Pape Strahlenschutz GmbH has approved.

Disinfection using ultraviolet irradiation is also possible. Radiation shielding glass should never be exposed to moisture or temperature fluctuations in acidic air.

Only use a sealant that is free of acids and alkaline substances (e. g. acetic acid, ammonia) during installation.

Adhesive labels can cause discoloration if the adhesive reacts with the glass surface. Do not remove the protective film from radiation shielding glass until immediately before installation. Do not use any sharp objects to remove it.

Please follow the on-site requirements of DIN 6812 when installing RD 30[®]. Sufficient radiation protection overlap must definitely be ensured during installation.



Installation, cleaning and care

Only use water, a mild detergent and a soft cloth.

RD 50® can be disinfected using commercially available disinfectants that Pape Strahlenschutz GmbH has approved. Disinfection using ultraviolet irradiation is also possible. Radiation shielding glass should never be exposed to moisture or temperature fluctuations in acidic air.

Only use a sealant that is free of acids and alkaline substances (e. g. acetic acid, ammonia) during installation. Adhesive labels can cause discoloration if the adhesive reacts with the glass surface. Do not remove the protective film from radiation shielding glass until immediately before installation. Do not use any sharp objects to remove it.

Please follow the on-site requirements of DIN6812 when installing RD 50®. Sufficient radiation protection overlap must definitely be ensured during installation.

Radiation shielding glass RD 50[®] and RD 30[®]

by SCHOTT

Pape Strahlenschutz GmbH



SCHOTT AG and Pape Strahlenschutz GmbH are reliable partners

Our team is working in the sales and product-management of Radiation Shielding Glass since 1997. After long time in the sales of the SCHOTT AG products RD 30[®] and RD 50[®] Ute Walgers and Martin Pape established their own company acts as a dealer for the German and East/South-European market for all inquiries and orders ≤ Euro 5.000,00.

We provide you with much more than glass - customer specific solutions. Depending on the application, either RD 50[®] or RD 30[®] should be used. The value „50“ stands for a density of at least 5.05 g/cm³ and „30“ stands for a density of at least 3.13 g/cm³.

At home in medicine, science and industry

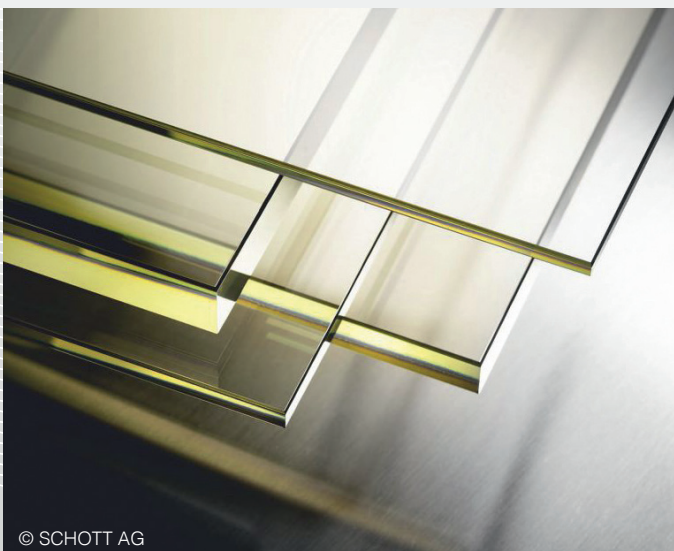
SCHOTT radiation shielding glasses can be found in many different areas of medicine, science and industry, particularly X-ray rooms, operating rooms, radiotherapy stations, dental clinics, laboratories and material testing. In the area of mammography, for instance in hospitals, medical practices CT and PET many well known manufacturerers use radiation shielding glass of SCHOTT.



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Highly committed team - advisory skills

You will benefit from the synergy effects that result from expert advice and our broad product range:



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- » radiation shielding glass in combination with PVB-foil and float glass 3 - 8 mm one or two sided
- » cast-in-place lamination process
- » round glasses DIA 10 - 350 mm
- » individual profile cut
- » edges (matt) grinded and polished
- » mitre joint, i.e. 45 degree
- » drill hole dia 5- 290 mm
- » matting
- » marking
- » converting heat-aborbing glass, also with jalousie inside
- » frames and spacer

Radiation shielding glass RD 50[®] and RD 30[®]

facts and figures

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RD 50[®]: Lead equivalents in mm Pb for x-radiation quality and maximum delivery sizes

Minimal thickness in mm	Maximum thickness in mm	Attenuation equivalent in mm Pb at a tube voltage of:					Maximum weight in kg per m ²	Maximum dimension in mm x mm
		80 kV	100 kV	110 kV	150 kV	200 kV		
5,0	7,0	1,5	1,5	1,5	1,5	1,4	33	2000x1000
7,0	9,0	2,1	2,1	2,1	2,1	2,0	43	2400x1220
8,5	10,5	2,6	2,6	2,5	2,5	2,4	51	2400x1220
10,0	12,0	3,1	3,1	3,0	3,0	2,9	59	2400x1220
11,5	14,0	3,5	3,6	3,5	3,5	3,3	66	2400x1220
16,0	19,0	-	5,0	4,9	4,9	4,6	91	2400x1220
20,0	23,0	-	6,3	6,1	6,1	5,8	91	1500x1220

* No tube voltage according to DIN EN61331-1; other voltages upon request or from our website

RD 50[®]: Lead equivalents in mm Pb for radionuclides

Nuklide	Attenuation equivalent in mm Pb at a thickness of:							
	4,0 mm	5,0 mm	7,0 mm	8,5 mm	10,0 mm	11,5 mm	16,0 mm	20,0 mm
C-11, N-13 O-15, F-18	1,4	1,8	2,6	3,1	3,7	4,2	5,9	7,4
CO-58	1,6	2,0	2,8	3,4	4,0	4,6	6,4	7,9
CO-60	1,7	2,2	3,1	3,7	4,4	5,1	7,1	8,9
Fe-59	1,7	2,2	3,1	3,7	4,4	5,1	7,0	8,8
Tc-99m	1,1	1,4	2,0	2,4	2,9	3,3	4,6	5,7

Additional radionuclides are available upon request or from our website. In certain cases, we present the lead equivalents on the basis of the Monte Carlo N-Particle Transport Code (MCNP) that has been experimentally validated.

RD 30[®]: Lead equivalents in mm Pb and dimension

Glas thickness in mm	Attenuation equivalent in mm Pb at a tube voltage of:						Maximum weight in kg per m ²	Maximum dimension in mm x mm
	50 kV	56 kV	76 kV	80 kV	110 kV	150 kV		
6,0±0,25	≥ 0,5	≥ 0,5	≥ 0,5	≥ 0,5	≥ 0,5	≥ 0,5	20	2350x1500

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