

Specification	TP
Technical properties	RD 50TM
Short description:	DESAG RD 50 TM radiation shielding glass is used to provide protection against X-ray and gamma radiation in medical and technical applications..
Intended purpose:	Use in radiation protection doors and windows
Glass type:	RD 50 TM
Comment:	<p>We only supply glasses of type VI according DIN EN 61331-2:</p> <p><i>„Lead glass panels with low optical quality and specific attenuation characteristics which are used to obtain optically clear and transparent shielding“.</i></p>
Note:	The glasses are viewed without any aids under workplace conditions during manufacture from a distance of approx. 0.9m at an angle of 90° and for approx. 30 seconds.
<p>The subsequent properties are based primarily upon the measuring results of the very latest standards and measuring methods. They are defined in corresponding „Measuring and Test Procedures“.</p> <p>We retain the right to change the data in keeping with the latest technical standards.</p> <p>Non-toleranced numerical values are reference values of an average production quality.</p> <p>Values marked with \diamond do not apply to the type of glass or no values are available.</p> <p>Requirements deviating from these specifications must be defined in writing in a customer agreement.</p>	

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1. Geometry

- 1.1 Length: in accordance with drawing or customer's guidelines
- 1.2 Width: in accordance with drawing or customer's guidelines
- 1.3 Diameter: in accordance with drawing or customer's guidelines

Maximum possible dimensions are showed in the following table including the nominal thickness and the attenuation equivalent:

Nominal thickness* [cm]	Min. thickness [mm]	Max. thickness [mm]	Attenuation equivalent in mm Pb for a tube voltage of:						Max. dimension [cm]
			80 kV	90 kV	100 kV	110 kV**	150 kV	200 kV	
0,65	5,0	6,5	1,5	-	1,5	1,5	1,5	1,4	170 x 100
0,75	6,0	7,5	1,8	-	1,8	1,8	1,8	1,7	170 x 100
0,85	7,0	8,5	2,0	-	2,1	2,1	2,1	2,0	210 x 105
1,0	8,5	10,0	-	2,5	2,5	2,5	2,5	2,4	210 x 105
1,2	10,0	12,0	-	2,9	3,0	3,0	3,0	2,8	200 x 100
1,45	12,5	14,5	-	3,7	3,7	3,7	3,7	3,6	200 x 80
1,8	16,0	18,0	-	4,7	4,8	4,8	4,8	4,6	150 x 80
2,5	23,0	25,0	-	6,8	6,9	6,9	6,9	6,6	130 x 80

* acc. DIN EN 61331-2

** tube voltage not enclosed in DIN EN 61331-1

For tube voltages > 200 kV the attenuation equivalent for 200 kV should be taken as the basis.

1.4 Rectangularity

The length of the diagonals of the panels may not be larger or smaller, as applicable, than the length of the diagonals of the largest or smallest permissible panels cut exactly at right angles.

2. Glass defects

2.1 Inclusions (Bubbles, Stones, Knots)
 No inclusions are permitted which impede free viewing with the eye.

2.2 Cords
 No cords are permitted which impede free viewing with the eye.

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<p>3. Surface defects No surface defects are permitted which impede free viewing with the eye.</p> <p>4. Form features All glasses are processed with a cut edge and 2 x seam.</p> <p>5. Labeling According to the standard the glasses are marked durably as follows: name of the manufacturer type attenuation equivalent IEC 61331-2:1994 serial No.* e.g.: SCHOTT AG RD 50 2,4 mm Pb 100 kV IEC 61331-2:1994 123456</p> <p>* for traceability</p>	

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