

Glass designation :	Med-X® Glass Blanks	Code	RWB46
Glass type :	Lead Glass for X-ray protection		
Application :	Radiation Protection Glasses		

<u>MECHANICAL PROPERTIES</u>			
Density :	>4.80	g/cm ³	
Linear Exp. Coef. :	78.8	(x10 ⁻⁷ /°C)	
Viscosity : Soft. Pt	668	°C	
Ann. Pt	541	°C	
Strain Pt	504	°C	
Poisson's Ratio	0.26	(√)	
Young's Modulus	62.6	(Gpa)	
Knopp Hardness	409	(kg/mm ²)	
Torsion Modulus	24.8	(Gpa)	
<u>REFRACTIVE INDEX</u>			
Line		λ (nm)	Value
F'	Cadmium	480.0	1.78018
F	Hydrogen	486.1	1.77857
e	Mercury	546.1	1.76651
*d	Helium	587.6	1.76048
C'	Cadmium	643.8	1.75424
C	Hydrogen	656.3	1.75308
Abbe Number	ve		29.55
	vd		29.83

<u>TRANSMISSION PROPERTIES</u>		
Path Thickness	Wavelength	Transmittances
2.0mm	550nm	85.7%
3.5mm		85.6%
5.0mm		>85%
6.5mm		85.4%
7.0mm		85.3%
8.5mm		85.2%
10.0mm		85.1%
11.0mm		85.0%
12.0mm		85.0%
13.0mm		84.9%
14.0mm		84.8%
16.0mm		84.7%
18.0mm		84.5%
20.0mm	84.4%	
Indicative Component (in weight)		
Lead (Pb)		51.9%
Barium (Ba)		17%

<u>COATING & TEMPERING</u>		
(See also notes below)	Vacuum coating	YES
	Chemical tempering	NO
	Air tempering	YES

<u>GLASS THICKNESS</u>		<u>Lead equivalence (mm) for stated X-Ray tube voltage</u>		
mm	Inches	100KV	120KV	150KV
1.9	0.0748	0.58	0.57	0.54
2.5	0.0984	0.78	0.78	0.72
3.0	0.1181	0.95	0.94	0.87

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CHEMICAL DURABILITY (class)	To water	NF ISO 719
	To acid	DIN 12-116
	To alkalis	ISO 695

Chemtempering : This glass has not been designed for chemical tempering

Air tempering :
A specific air tempering schedule must be used for this glass, at lower temperature than for standard crown glasses. More informations are available from Corning SAS Sales Department.

Coating :
Special attention is required to achieve an appropriate surface quality, including the selection of the cleaning products used after surfacing and before coating. The use of strong acidic solutions shall be avoided. It is recommended to check the final product for transmission properties

Surfacing :
Because of its chemical sensitivity, MED-X glass requires special care in smoothing and finishing, as the surface quality might be altered by the subsequent cleaning operations.

Compatible Bariums :
This glass can not be used to manufacture fused multifocal lenses.
There is no compatible bariums to be fused with this glass

Properties according to ISO 14889

ISO 14889 Chapter 4.3.1 *Physiological compatibility*

The above glass products are not known to be physiologically incompatible, nor known to create a significant number of allergic reactions, when the lenses made out of these materials are used as intended by the manufacturer.

ISO 14889 Chapter 4.3.2 *Flammability*

The above glass products are not flammable and when tested as described in chapter 5.1 of ISO 14889, there is no continued combustion after withdrawal of the test rod.