

## 112.4 - Trace Elements in Glass (solid and wafer forms)

These SRMs are intended for calibrating instruments and evaluating analytical techniques used to determine trace elements in inorganic matrices. NOTE: The nominal glass composition of SRMs 610 through 617 is 72% SiO<sub>2</sub>, 12% CaO, 14% Na<sub>2</sub>O, and 2% Al<sub>2</sub>O<sub>3</sub>.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

Status	<a href="#">606</a> Now Selling	<a href="#">610</a> Now Selling	<a href="#">611</a> Now Selling	<a href="#">612</a> Now Selling	<a href="#">613</a> Now Selling	<a href="#">614</a> Now Selling	<a href="#">616</a> Now Selling	<a href="#">617</a> Now Selling
Description >>	Trace Elements in Basalt Glass	Trace Elements in Glass	Trace Elements in Glass	Trace Elements in Glass	Trace Elements in Glass	Trace Elements in Glass	Trace Elements in Glass	Trace Elements in Glass
Unit of Issue >>	glass mounted in epoxy	4 wafers (3 mm thick)	4 wafers (1 mm thick)	4 wafers (3 mm thick)	4 wafers (1 mm thick)	4 wafers (3 mm thick)	4 wafers (3 mm thick)	4 wafers (1 mm thick)
Element (in mg/kg)								
Antimony		415.3	415.3	34.9	34.9	(1.06)	<i>0.078</i>	<i>0.078</i>
Arsenic		340	340	37.4	37.4			
Barium	174	453	453	38.6	38.6			
Boron		(351)	(351)	(32)	(32)	1.30	0.20	0.20
Cadmium		244	244	29.9	29.9	(0.55)		
Cerium	14.6			(39)	(39)			
Chromium	315	415	415	35.0	35.0			
Cobalt	48.3	(390)	(390)	35.5	35.5	0.73		
Copper	86.5	444	444	37.7	37.7	1.37	0.80	0.80
Dysprosium				(35)	(35)			
Erbium				(39)	(39)			
Europium				(36)	(36)	0.99		
Gadolinium				(39)	(39)			
Gallium						(1.3)	0.23	0.23
Gold		(25)	(25)	(5)	(5)	(0.5)	<i>0.18</i>	<i>0.18</i>
Iron		458	458	51	51	13.3	11	11
Lanthanum	5.45			(36)	(36)	0.83	0.034	0.034
Lead	4.26	426	426	38.57	38.57	2.32	1.85	1.85
Lithium		(488)	(488)	(40)	(40)			
Manganese		457	457	37.7	37.7			
Neodymium				(36)	(36)			
Nickel		458.7	458.7	38.8	38.8	(0.95)		
Potassium		(461)	(461)	(64)	(64)	30	29	29
Rubidium		425.7	425.7	31.4	31.4	0.855	0.100	0.100
Samarium				(39)	(39)			
Scandium	33.6					0.59	0.026	0.026
Selenium		115.2	115.2	16.1	16.1			
Silver		268	268	22.0	22.0	0.42		
Strontium	169	515.5	515.5	78.4	78.4	45.8	41.72	41.72
Thallium		61.8	61.8	15.7	15.7	0.269	0.0082	0.0082
Thorium		457.2	457.2	37.79	37.79	0.748	0.0252	0.0252
Titanium		(437)	(437)	(41)	(41)	3.1	2.5	2.5
Uranium		461.5	461.5	37.38	37.38	0.823	0.0721	0.0721
Vanadium	266							
Ytterbium				(42)	(42)			
Yttrium	17.1							
Zinc	79.2	(433)	(433)					

-Certified values are normal font.

-Non-certified and reference values are italicized.

-Information values and values of potential interest are within parentheses.

In addition to the elements listed above, the SRMs 610 to 617 contain the following 23 elements: Be, Bi, Cs, Cl, F, Ge, Hf, Hg, Li, Lu, Mg, Nb, P, Pr, S, Tb, Te, Tm, Sn, W, V, Y, and Zr.