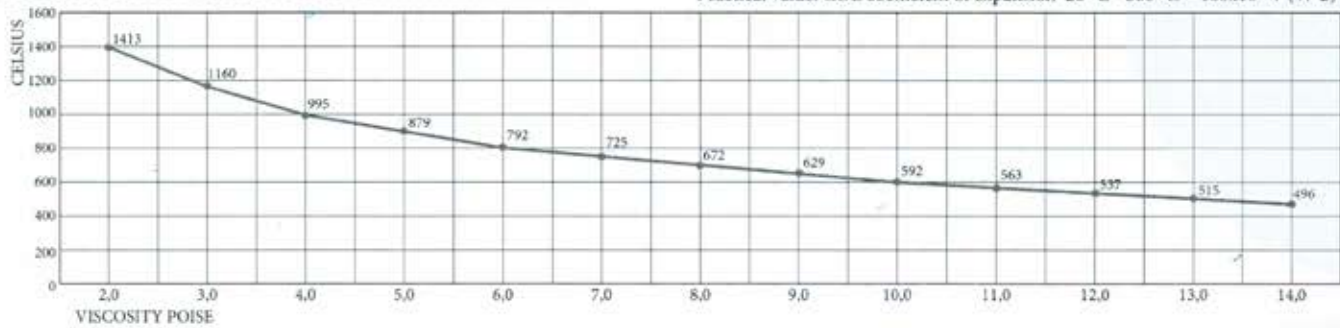


Chemical Analysis

SiO ₂	Na ₂ O	K ₂ O	CaO	BaO	Al ₂ O ₃
69,0% - 71,5%	12,5% - 12,9%	5,0% - 5,5%	4,0% - 4,5%	2,5% - 3,0%	1,1% - 1,5%
B ₂ O ₃	ZnO	SO ₃	Sb ₂ O ₃	Li ₂ O	Er ₂ O ₃
1,0% - 1,5%	0,6% - 1,3%	0,21% - 0,31%	0,2% - 0,5%	0,06% - 0,10%	0,03% - 0,05%

Theoretical value: COE coefficient of expansion 96×10^{-7} (+/-2)

Practical value: COE coefficient of expansion 20° C - 300° C = 100×10^{-7} (+/-2)



Viscosity

log 10 viscosity POISE	2.0	2.5	3.0	4.0	5.0	6.0	7.0	7.6	8.0	9.0	10.0	11.0	11.5	12.0	13.0	13.3	14.0	14.5
CELSIUS	1413	1271	1160	995	879	792	725	692	672	629	593	563	550	537	515	508	495	486
	Melting Point			Working Point				Littleton Point				Softening Point			Higher Annealing Point			Lower Annealing Point

Reheating or Melting

Cristalica100 is pre-molten, which means you do not need to bring the glass to a very high temperature in order to obtain a clear glass.

The working temperature, based on the products that you are creating, will be adapted to a level between 1130-1160 degrees Celsius.

After you have finished work you can directly place the glass nuggets into the furnace. Keep the glass over night at a temperature of 1150-1200 degrees.

In some furnaces, it is recommended to reduce the temperature to 1050 degrees, after which you may raise it up again to your working temperature.

You can fill up the crucible in one inlay or divide the amount into three equal parts. This choice depends on the total amount used, as well as on the type of furnace you have.

We recommend a daily fill-up of the furnace with the total amount you need to use the following day.

In the case that you want to add glass cullet from your own production, please introduce it in the furnace with the first inlay of nuggets, because the cullet will create small air bubbles when melted, which will not rise to the surface as fast as the larger air bubbles from in between our nuggets.

A typical "reheating" scheme

Temperature	Minimum	Maximum	Time	
1100	1150	16:00	Working temperature	
1150	1190	17:00		
1150	1190	18:00		
1150	1190	19:00		
1150	1190	20:00		
1150	1190	21:00		
1150	1190	22:00	Remelt temperature	
1150	1190	23:00	can be same as	
1150	1190	0:00	Working temperature	
1150	1190	01:00		
1150	1190	02:00		
1150	1190	03:00		
1100	1150	04:00		
1050	1100	05:00	Possibly squeeze the glass under 1050	
1050	1100	06:00		
1100	1150	07:00	Raise temperature slowly	

A typical annealing scheme

	Celsius	Minutes per step	Degrees down from last temperature	Degrees per Hour
	510	30	HOLD	0
	476	90	34	22,66667
	416	180	94	31,33333
	336	120	80	40
	180	180	160	53,33333
		600		
Suitable for blown glass up to 25mm				

Any technical questions are welcome, we intend to answer within 12 hours, do not hesitate to contact us.