



Experimental Series: 24927 (PbO-containing glass) Co-Mill Options with Fillers for Low CTE, High F

Base Data:

Frit/GC lot	CTE (x10 ⁻⁷ /°C)	Tg (°C)	Ts (°C)	
8994/24927(1)	122.4	318.5	344.9	
7721/24935(1)	126.7	277.1	301.2	
9108/24935(1)	128.8	279.7	298.2	
9049/V2248(1C)	-5.6	N/A	N/A	1225°C sinter
9275/V2257(1A)	54.4	N/A	N/A	1000°C sinter
9275/V2260(1A)	52.2	N/A	N/A	850°C sinter
9275/V2261(1A)	43.5	N/A	N/A	850°C sinter

24927 Co-Mill Series:

CTE Data (x10⁻⁷/°C)

Filler Quantity (wt%)	Sinter Temp (°C)	Filler Type							
		SiO2 CM1/2/3	ZrSiO4 CM4/5/6	V2257 CM7/8/9	V2260 CM10/11/12	V2261 CM13/14/15	ZnO CM16/17/18	Zn3(PO4)2 CM19/20/21	V2248 CM22/23
0	360	122.4	122.4	122.4	122.4	122.4	122.4	122.4	122.4
10	360			100.6					
	375	116.4	88.4		101.9	100.1	108.2	107.2	78.1
	400								
15	375	123.6	86.6	91.6	97.8	107.6	107.6	107.0	
	400	120.4							
20	375		86.2		90.1	103.9			
	400	124.1		80.7					63.4
	420	120.7							
25	375			N/A			91.4		
	400								
	420								
50	500							90.3	
	30	450			N/A				45.5
	40	625							41.6
50	775							28.6	

Ideal sintering temperature

Disclaimer - VIOX believes this data to be accurate and for reference use only, subject to normal variations. No warranty is expressed or implied regarding accuracy of the information.

Ideal Sintering Temperature - Densely fired sample, no bloating evident.



ISO 9001:2000

Experimental Series: 24935 (PbO-containing glass) Co-Mill Options with Fillers for Low CTE, High Flow

Base Data:

Frit/GC lot	CTE (x10 ⁻⁷ /°C)	Tg (°C)	Ts (°C)	
8994/24927(1)	122.4	318.5	344.9	
7721/24935(1)	126.7	277.1	301.2	
9108/24935(1)	128.8	279.7	298.2	
9049/V2248(1C)	-5.6	N/A	N/A	1225°C sinter
9275/V2257(1A)	54.4	N/A	N/A	1000°C sinter
9275/V2260(1A)	52.2	N/A	N/A	850°C sinter
9275/V2261(1A)	43.5	N/A	N/A	850°C sinter

24935 Co-Mill Series:

CTE Data (x10⁻⁷/°C)

Filler Quantity wt%	Sinter Temp (°C)	Filler Type							
		SiO2 CM1/2/3	ZrSiO4 CM4/5/6	V2257 CM7/8/9	V2260 CM10/11/12	V2261 CM13/14/15	ZnO CM16/17/18	Zn3(PO4)2 CM19/20/21	V2248 CM22/23
0	360	126.7	126.7	126.7	126.7	126.7	126.7	126.7	126.7
10	350					119.5			
	360	102.2	109.3	114.5	116.39		120.4	128.4	
	375								95.1
	400								
15	350					115.5			
	360			106.8			106.2		
	375	88.2	100.9		110.6				
	385							119.4	
	400								
20	350					115.1			
	375	130.0	89.8	102.1	101.4				
	400								66.4
	420								
25	375								
	400			N/A			104.3		
	420								
	425							113.1	
	500								

Ideal sintering temperature

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Ideal Sintering Temperature - Densely fired sample, no bloating evident.





Experimental Series: PbO-free glass Options with Fillers for Low CTE, High Flow

Base Glass Data:

Frit/GC lot	CTE (x10 ⁻⁷ /°C)	Tg (°C)	Ts (°C)
9209/V2211(3)	96.2	428.3	458.4
9245/V2079(1)	104.7	407.1	437.7
9158/V2289(1)	107.4	455.0	494.0
9275/V2248(2)	-3.4	N/A	N/A
9275/V2257(2)	57.8	N/A	N/A

1225°C sinter
1025°C sinter

CTE Data (x10⁻⁷/°C)

V2211 Co-Mill Series:

Filler Quantity	Sinter Temp (°C)	Filler Type	
		ZrSiO4 CM1	V2248 CM2/3/4
0	450	96.2	96.2
10	500	[Greyed out]	63.5
	525		
	550		
15	500	[Greyed out]	55.6
	525		
	550		
20	500		
	525		48.2
	550		
	600	70.5	

V2079 Co-Mill Series:

Filler Quantity	Sinter Temp (°C)	Filler Type	
		V2248 CM1/2/3	V2257 CM4/5/6
0	450	104.7	104.7
10	500		
	525	52.1	99.8
	550		
15	500		
	525	48.1	90.8
	550		
20	500		
	525		96.1
	550	35.9	
	600		

V2289 Co-Mill Series:

Filler Quantity	Sinter Temp (°C)	Filler Type	
		V2248 CM1/2/3	V2257 CM4/5/6
0	450	107.4	107.4
10	500	92.3	
	510		90.9
	525		
15	500		
	525	79.1	
	550		86.1
20	500		
	525		
	550	78.3	88.0
	600		

[Yellow box] Ideal sintering temperature

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Ideal Sintering Temperature - Densely fired sample, no bloating evident.



ISO 9001:2000