

Description: Ferro's low temperature Pb-free glasses are produced with raw materials and processes to yield extremely low Pb, Cd, Cu and Hg levels making them ideal for RoHS-friendly end products. Like our other low temperature glasses, they encompass a wide range of

properties to meet the requirements of an extensive variety of applications. This includes hermetic sealing, encapsulation and coating of metal, ceramic and glass substrates and components, as well as use as binding agents for metal and ceramic pastes.

Vitreous Low Temperature Pb-free Glasses

	EG 2934	EG 2888	EG 2922	EG 2964	EG 2735	EG 2967
Composition Family	Bi-Zn-B-Si-R2O	Bi-B-Zn-Si	Bi-Zn-Si	Bi-Zn-B	Bi-Zn-B	Zn-B-Si-Al-R2O
Peak Fire Temp (°C)	505	550	550	560	580	590
Time @ Peak Temp (mins)	15	15	15	15	15	15
CTE @ 260°C	85.5	82	77	63.5	60	56
CTE @ Set Pt	97	101	85.5	84.5	64	62
Softening Point	445	480	505	520	535	530
Ta	430	480	485	490	520	525
Tg	415	435	465	480	495	496
DEN	5.55	5.9	5.8	4.85	4.47	2.86
Typical Powder Form	VWG	SRRG, VWG	VWG	VEG, VWG	VWG	VWG
Typical Application	Bonding & Sealing Agent	Ferrite Sealing	Soda Lime, PD 200	Bonding & Sealing agent	Alumina & ZnO overglaze & sealing	Alumina & ZnO overglaze & sealing

Crystallising Low Temperature Pb-free Glasses

	EG 2998	EG 2992	EG 2742
Composition Family	Bi-Zn-B	Bi-Zn-B	Zn-Ba-B-Si
Peak Fire Temp (°C)	500	535	600
Time @ Peak Temp (mins)	15	15	15
CTE @ 260 °C	88.5	77	97
CTE @ Set Pt.	98	83.5	110
Softening Point	440	456	525
Tg	405	420	490
DEN	5.65	5.92	4.28
Typical Powder Form	VEG,	SRRG, VWG	VWG
Typical Application	Lamp Sealing	Ferrite Sintering Aid	Bonding & Sealing Agent

www.ferro.com

DISCLAIMER: Reasonable care has been taken in the preparation of this information, but FERRO EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS AND ASSUMES NO RESPONSIBILITY AS TO ACCURACY OR SUITABILITY OF THIS INFORMATION OF THIS PRODUCT FOR ANY PURCHASER'S OR USER'S USE OR FOR ANY CONSEQUENCE OF ITS USE. FERRO DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR ANY PARTICULAR USE. All statements, technical information and recommendations contained herein are based on Seller's or Manufacturer's test and the test of others, and are believed to be accurate, but no guarantee of accuracy is made. Judgment as to the suitability of information herein or the user's purposes are necessarily the user's responsibility. Users shall determine the suitability of the products for their own intended application.

Users assume all risk of use or handling whether or not in accordance with any statements or recommendation of the seller or manufacturer, Liability, if any, is and shall be limited to the replacement of such quantity of material proved not to conform to specifications as set out in product specification. Statements concerning the possible use of these products are not intended as recommendation to use these products in infringement of any patent. No guarantee is made that any use of the products does not infringe third-party intellectual property or patent rights anywhere in the world.