

廣泛對應使用在各種的燒成溫度的電子零件 環保的無鉛素材

Providing a wide range of support for manufacturing electronic parts at various firing temperatures! This material is also lead-free and environmentally friendly.

如果有指定的條件（耐熱性等），本公司可依照客戶需求幫您選擇適合的產品。另外，對於顧客特別的條件也可以客製化。歡迎諮詢。

We can select the right material for you according to your requirements (i.e. heat resistance). In addition, we can also customize the product to fit requirements that are specific to the customer. To get started, feel free to contact us today.

符合RoHS規定全部無鉛的設計

All mixtures are designed lead-free to support RoHS compliance.

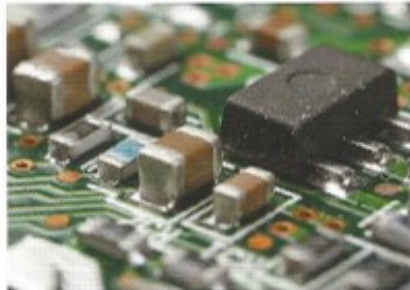
主要的用途 Main uses

LTCC	各種電阻	絕緣塗料	LTCC	All types of resistors	Insulating coating
MLCC	熱位差	變阻器	MLCC	Thermal heads	Varistors
PDP(電界質、壁材)	電容器	表面塗料	PDP	Capacitors	Cover coating
太陽能電池	密封	各種玻璃膏	(dielectrics and ribs material)	Sealing	All types of glass pastes etc.
燒結助劑	電極	etc.	Solar cells	Electrodes	
			Sintering additive		



太陽能電池

Solar cells



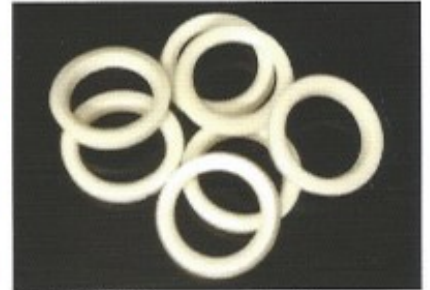
電容器

Capacitors



電極

Electrodes



陶瓷環

Ceramic rings



陶瓷基板

Ceramic sheets

玻璃粉的製造方法 Frit manufacturing process

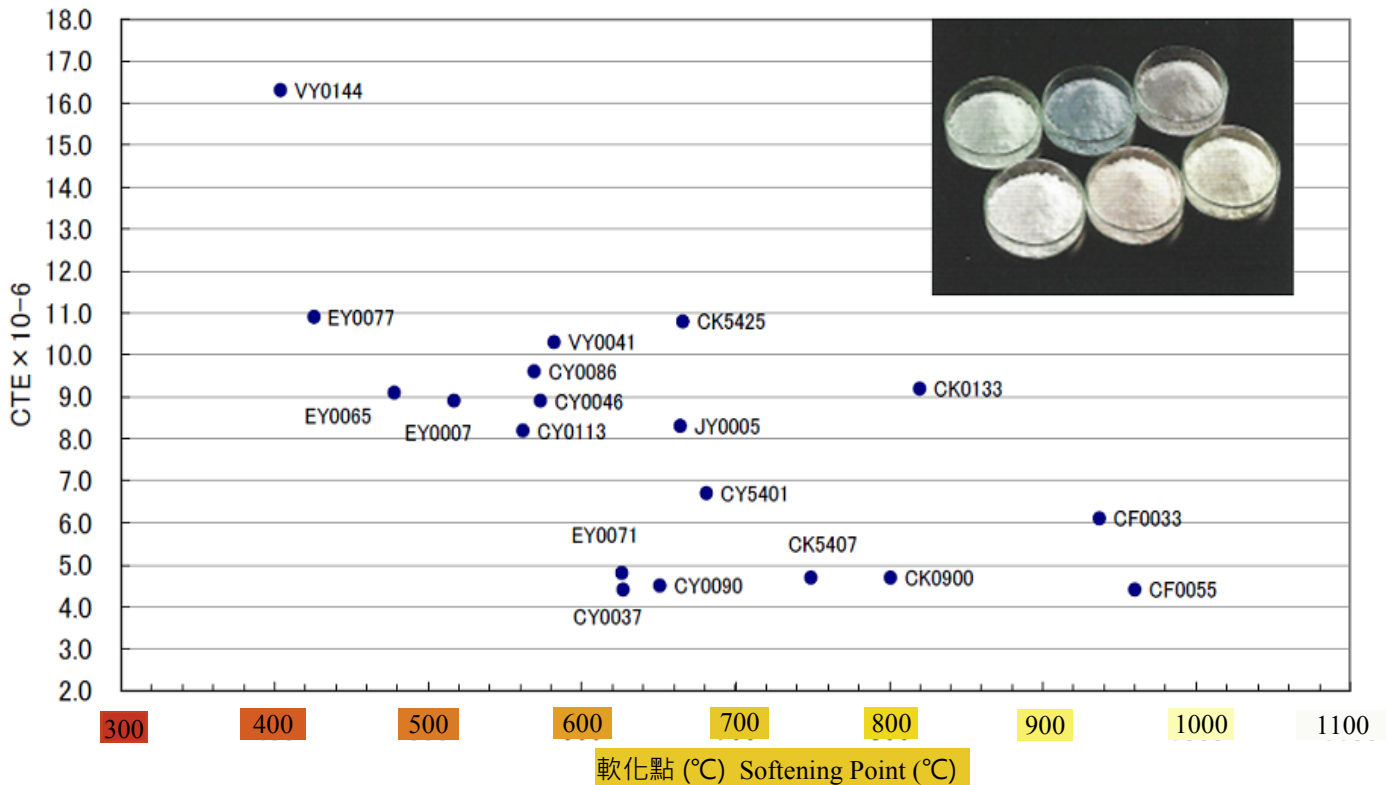


對應各種的燒成溫度

▶▶▶ 首先，顧客用代表品號來評估，再客製化所需的產品。

Supporting various firing temperatures!

First, the customer evaluates the standard part numbers in order to customize their order.



產品編號 Part number	玻璃主要成分 Glass chief elements	R2O含量 (wt%) R2O content	TMA (°C)		線性熱膨脹係數溫度範圍 Temperature range for linear thermal expansion coefficient		DTA (°C)				推薦燒成溫度 (°C) Recommended firing temperature	主用途 Main uses
			Tg	Yp	50-300°C		Tg	Tw	Ts	Tc		
					CTE×10 ⁻⁷	CTE×10 ⁻⁶						
VY0144	P2O5-Al2O3-R2O	30	344	373	163	—	339	388	404	440	420	耐熱塗料 Heat resistant coating
EY0077	Bi2O3-B2O3	—	368	392	10.9	—	347	408	426	569	450	電極 Electrodes
EY0065	Bi2O3-B2O3	—	417	446	9.1	—	404	469	478	>600	500	電極 Electrodes
EY0007	Bi2O3-B2O3	—	426	462	8.9	—	425	497	517	>600	535	電極 Electrodes
CY0113	B2O3-Al2O3-ZnO	5	446	488	8.2	—	444	533	562	>600	580	燒結助劑 Sintering additive
CY0086	B2O3-ZnO-RO	10	454	503	9.6	—	447	550	569	—	590	絕緣塗料 Insulating coating
CY0046	P2O5-ZnO-RO	1	462	509	8.9	—	450	535	573	>600	590	電極 Electrodes
VY0041	B2O3-BaO	—	507	544	10.3	—	500	560	582	619	600	電極 Electrodes
EY0071	B2O3-ZnO	—	524	561	4.8	5.5	518	599	626	720	645	絕緣塗料 Insulating coating
CY0037	B2O3-ZnO	—	549	587	4.4	5.0	548	605	627	669	645	電極 Electrodes
CY0090	B2O3-ZnO	—	558	597	4.5	5.1	564	612	651	852	670	電極 Electrodes
JY0005	Si2O-B2O3-RO	5	573	622	8.3	9.1	560	641	664	778	680	電極 Electrodes
CK5425	SiO2-Al2O3-RO	20	525	580	10.8	11.9	521	619	666	—	700	燒結助劑 Sintering additive
CK5401	SiO2-B2O3	10	501	560	6.7	—	494	641	681	—	720	燒結助劑 Sintering additive
CK5407	SiO2-B2O3	5	503	613	4.7	5.0	502	692	749	—	800	燒結助劑 Sintering additive
CK0900	SiO2-B2O3	5	535	637	4.7	4.8	520	761	801	—	850	燒結助劑 Sintering additive
CK0133	SiO2-B2O3	10	545	614	9.2	9.9	590	768	820	—	870	燒結助劑 Sintering additive
CF0033	SiO2-Al2O3-RO	—	773	825	6.1	6.4	762	835	937	—	980	表面塗料 Cover coating
CF0055	SiO2-Al2O3-RO	—	779	841	4.4	4.8	783	885	960	—	1010	表面塗料 Cover coating
備註 Notes	RO.....CaO, SrO, BaO R2O.....Li2O, Na2O, K2O		Tg: 玻璃轉移點...開始異常膨脹溫度 Yp: 屈服點.....停止異常膨脹溫度 Tg: Glass-liquid transition point... temperature when abnormal expansion starts Yp: Yield point... temperature when abnormal				Tg: 玻璃轉移點...第1回折點 Tw: 作業點.....第3回折點 Ts: 軟化點.....第4回折點 Tc: 結晶化溫度.....放熱峰(頂點)溫度 Tg: Glass-liquid transition point... 1st inflection point Tw: Working point.....3rd inflection point Ts: Softening point.....4th inflection point Tc: Crystallization temperature.....exothermic peak temperature					

※熱特性資料是代表數值，在粒度等等的影響下可能會有不同的數值。

Revised:2017.10.25

*The thermal characteristics data uses representative values, and therefore, the values may vary due to the particle size, etc.



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