



VIBRANTZ
TECHNOLOGIES™



**High-performance
frits for tile and
ceramic applications**



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Formulated for consistency and durability, our frits perform across a wide range of ceramic uses including wall, floor and roof tile, dinnerware and sanitaryware. Expertly developed for demanding thermal processes, they support aesthetics and production efficiency.

Frit types offered:

- Transparent
- Matte
- Specialty
- Opaque
- Flux

Curious about our full range of frit types? See the following pages for more details.



Transparent frits

Code	Technical properties	Li ₂ O	Na ₂ O	K ₂ O	Li ₂ O	MgO	BaO	ZnO	Al ₂ O ₃	B ₂ O ₃	SiO ₂	ZrO ₂	P ₂ O ₅	TiO ₂	Cubic COE	Soft. Heat. Micr.
FV-100	DFT 980 - 1000°C		*	*	*		*	*	*	*	***				189	730
FV-101	DFF 1030 - 1040°C		*	*	*	*		*	*	*	***				185	895
FV-102	DFF 1040 - 1060°C		*	*	*	*		*	*	*	***				188	930
FV-103	DFF 1070 - 1090°C		*	*	*	*	*	*	*	*	***				183	1030
FV-104	SFF 1100 - 1110°C		*	*	**	*	*	*	*	*	***				170	1050
FV-106	SFF 1110 - 1120°C		*	*	**	*	*	*	*	*	***				175	1055
FV-107	SFF 1110 - 1140°C high glossy		*	*	**	*		*	*	*	***				170	1065
FV-105	SFF 1110 - 1140°C high COE		*	*	**	*	*	*	*	*	***		*		192	1065
FV-108	SFF 1120 - 1130°C		*	*	**	*		*	*	*	***				172	1060
FV-109	SFF 1140 - 1160°C		*	*	**	*		*	*	*	***				168	1075
FV-110	SFF 1160 - 1180°C		*	*	**	*		*	*	*	***				160	1085
FV-111	SFF 1180 - 1200°C high COE		*	*	**	*	*	*	*		***		*		220	1110

Opaque frits

Code	Technical properties	Li ₂ O	Na ₂ O	K ₂ O	Li ₂ O	MgO	BaO	ZnO	Al ₂ O ₃	B ₂ O ₃	SiO ₂	ZrO ₂	P ₂ O ₅	TiO ₂	Cubic COE	Soft. Heat. Micr.
FV-200	DFT 980 - 1000°C		*	*	*	*		*	*	*	***	*			165	860
FV-201	DFF 1030 - 1050°C		*	*	*	*			*	*	***	*			188	900
FV-202	DFF 1030 - 1050°C high glossy		*	*	*	*		*	*	*	***	*			175	910
FV-204	DFF 1070 - 1090°C		*	*	*	*			*	*	***	*			180	932
FV-203	DFF 1030 - 1050 high COE		*	*	*	*			*	*	***	*			220	880
FV-205	SFF 1110 - 1130°C		*	*	*	*		*	*	*	***	*	*		160	1055
FV-206	SFF 1110 - 1130°C cold white		*	*	*	*		*	*	*	***	*	*		165	1045
FV-207	SFF 1150 - 1170°C		*	*	*	*		*	*	*	***	*	*		168	1070
FV-208	SFF 1170 - 1200°C		*	*	*	*		*	*	*	***	*			160	1135

DFT: Double Traditional Firing; DFF: Double Fast Firing; SFF: Single Fast Firing

Matte frits

Code	Technical properties	Li ₂ O	Na ₂ O	K ₂ O	Li ₂ O	MgO	BaO	ZnO	Al ₂ O ₃	B ₂ O ₃	SiO ₂	ZrO ₂	P ₂ O ₅	TiO ₂	Cubic COE	Soft. Heat. Micr.
FV-300	Zn-Ba 1000 - 1100°C	*	*	*	*	*	**	*	*	*	***				155	950
FV-301	Zn-Ba 1100 - 1180°C		*	*	*	*	*	*	*		***				125	1080
FV-302	Zn-Ca 1050 - 1180°C		*	*	**			**	*		***				196	950
FV-303	Ca-Al 1150 - 1200°C		*	*	**				**		***				163	1215
FV-304	Ca-Mg 1150 - 1200°C		*	*	**	*			*		***				215	1235

Flux frits

Code	Technical properties	Li ₂ O	Na ₂ O	K ₂ O	Li ₂ O	MgO	BaO	ZnO	Al ₂ O ₃	B ₂ O ₃	SiO ₂	ZrO ₂	P ₂ O ₅	TiO ₂	Cubic COE	Soft. Heat. Micr.
FV-400	High COE		**	*	*	*			*	*	***				280	730
FV-401	Low COE			*	*	*	*		*	**	***				112	960

Special frits

Code	Technical properties	Li ₂ O	Na ₂ O	K ₂ O	Li ₂ O	MgO	BaO	ZnO	Al ₂ O ₃	B ₂ O ₃	SiO ₂	ZrO ₂	P ₂ O ₅	TiO ₂	Cubic COE	Soft. Heat. Micr.
FV-500	Opaque engobe		*	*	*	*			*	*	***	*			175	960
FV-501	Op. engobe high COE		*	*	*	*			**	*	***	*			260	830
FV-502	High opacity, high temp		*	*	**	*			*		***	*			195	975
FV-503	Opaque engobe Ti		*	*	*	*			*	*	***		*	*	185	1005
FV-504	Transp. high temp.		*	*	*	*			*		***				162	1160

Composition range

<15 * 15-45 ** >45 ***

For more information contact your local Vibrantz representative.

[Vibrantz.com/ContactUs](https://www.vibrantz.com/ContactUs)