



ESL ELECTROSCIENCE

CERAMIC TAPES &
THICK-FILM MATERIALS

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OVERGLAZE COMPOSITION

4770-BCG

HOS Heaters on Steel[®] • COS Circuits on Steel[®] • TFOS Thick Film on Steel[®]

ESL 4770-BCG overglaze composition is designed for use as a screen-printable protective and stabilizing coating over cermet conductors, resistors in thick film circuits and discrete resistors. Thin (approximately 12µm fired) coatings of 4770-BCG over resistors are preferred for good post laser trim stability.

When large numbers of large area overglaze prints are fired it is important that the furnace be supplied a sufficiency of clean and dry air. For further information please see the separate Air Supply data sheet.

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10 rpm, ABZ spindle, 25.5 ± 0.5 °C)	275 ± 30 Pa.s
Colour:	Translucent green
Shelf Life (20 - 25 °C):	6 months

PROCESSING

Screen Mesh, Emulsion:	200 or 325 S/S, 12 µm
Levelling Time (at 20°C):	5 - 10 min
Drying Time (at 125°C): (dependent on substrate volume)	10 - 15 min
Firing Temperature Range:	500°C - 550°C in air
	Optimum: 525°C
	Time at peak: 5 - 10 min
Total Firing Cycle:	30 min
Thinner:	ESL 401

ESL Europe 4770-BCG 0302-F

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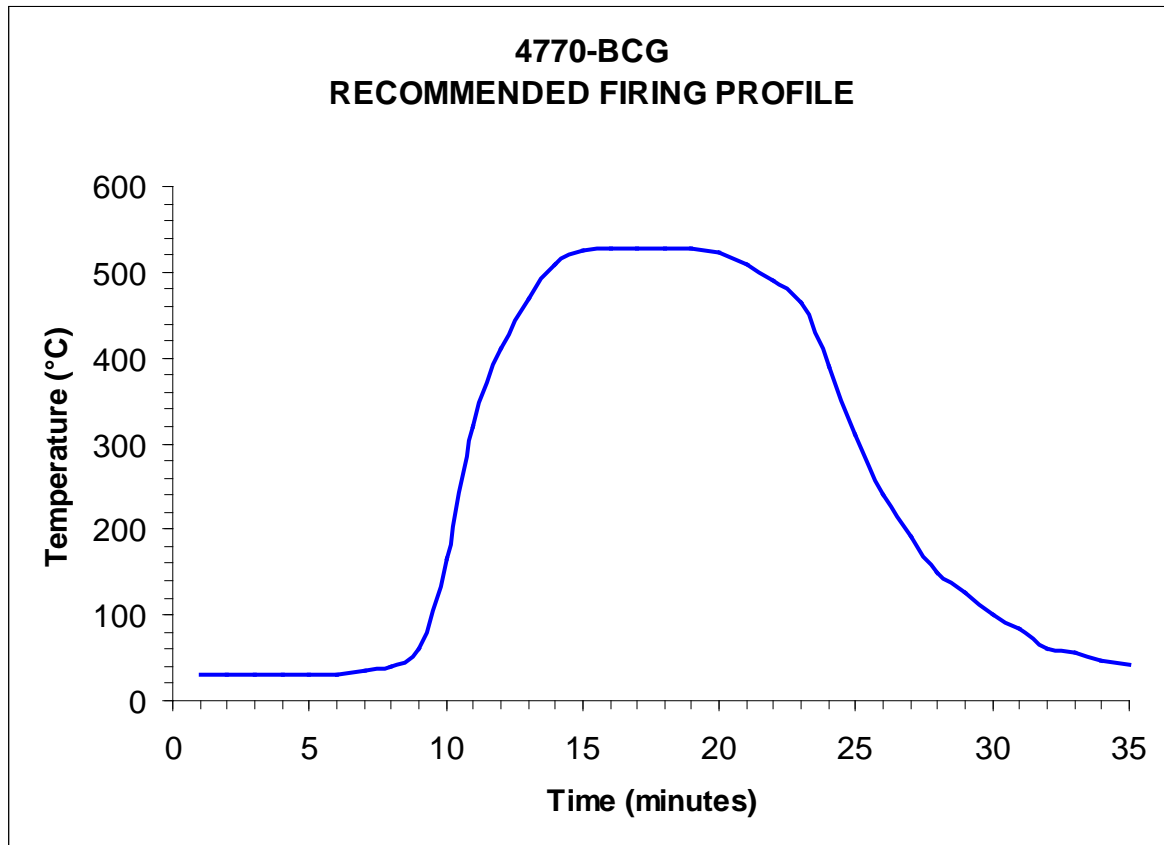
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See Caution and Disclaimer on other side.

TYPICAL PROPERTIES

Fired Thickness:

10 - 14 μm



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CAUTION: Proper industrial safety precautions should be exercised in using these products. Use with adequate ventilation. Avoid prolonged contact with skin or inhalation of any vapours emitted during use or heating of these compositions. The use of safety eye goggles, gloves or hand protection creams is recommended. Wash hands or skin thoroughly with soap and water after using these products. Do not eat or smoke in areas where these materials are used. Refer to appropriate MSDS sheet.

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