Low Thermal Expansion Epoxy Passes NASA Low Outgassing Tests

Formulated with a special blend of polymeric and inorganic materials, Master Bond EP30LTE-LO features unparalleled dimensional stability and sets new standards of performance for bonding, sealing, casting and coating applications in the aerospace, electrical, electronic, chemical, optical, and computer industries. This two component epoxy combines outstanding performance with a very low thermal expansion coefficient, a significant breakthrough from the high thermal expansion that is typical of most epoxy compounds.
Serviceable over the wide temperature range of -60°F to 250°F, EP30LTE-LO cures at room temperature with 85% of its maximum strength developed within 48 hours. Faster cures are possible at elevated temperatures. This 100% reactive epoxy features an exceptionally low coefficient of thermal expansion of $12x10^{-6}$ in/in/°C and a low shrinkage rate of less than 0.0002 in/in. It bonds well to metals, glass, ceramics, wood, vulcanized rubbers and most plastics, and produces bonds with a tensile strength over 5,000 psi.

This electrically insulative system resists thermal cycling and chemicals including water, fuels, and many acids, bases, salts and organic solvents. It has a long working life of up to 60 minutes for a 200 gram mass.

EP30LTE-LO has a 10 to 1 mix ratio by weight and can be easily applied with a spatula, knife, trowel, brush or paint roller. It can also be readily cast as thick as 1 inch without undue exotherm developing. EP30LTE-LO is available in half-pint, pint, quart, gallon and 5 gallon container kits.

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