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The following is a news release from Master Bond Inc. You have received it because you are listed as an editor for your publication.

Attached to this email is a low resolution version of the photograph that is included in the press kit for this product.

A high resolution version of this image and files with the body text of this release in Word, HTML and text formats are available at <https://www.masterbond.com/newsrelease/ep53tc>.

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## FOR IMMEDIATE RELEASE

**Thermally Conductive, Flowable Epoxy Meets NASA Low Outgassing Specifications**

Master Bond has launched EP53TC, a two-component epoxy designed for bonding, sealing, coating, and small potting applications where efficient heat dissipation is crucial. The epoxy is formulated with a specialty filler with a particle size ranging from 5 to 30 microns. It is a flowable system with a mixed viscosity of 45,000-65,000 cps at room temperature. This filler size and its relatively flowable viscosity enable the EP53TC epoxy to fill small voids making it ideal for heat dissipation.

EP53TC meets ASTM E595 NASA low outgassing specifications and provides reliable electrical insulation with a volume resistivity greater than 1014 ohm-cm. The material offers a thermal resistance of 10-15 x 10-6 K•m2/W and a thermal conductivity of 2.3-2.6 W/(m•K). This epoxy exhibits dimensional stability with low shrinkage upon curing and a low coefficient of thermal expansion of 14-16 x 10-6 in/in/°C. Mechanical properties include a tensile strength of 5,000 to 7,000 psi, a tensile modulus greater than 1,000,000 psi, and a Shore D hardness of 85-95. The service temperature range is from -100ºF to +300ºF (-73ºC to +149ºC).

A moderate heat cure is required to achieve optimal properties with EP53TC. The recommended cure schedule is 2 hours at 80ºC followed by a post-cure of 90-120 minutes at 125ºC. This epoxy is available in various packaging options, including ounce kits, quarter pint kits, half pint kits, pint kits, and quart kits.

**Master Bond Low Outgassing Epoxies**

Master Bond offers a range of specialty adhesives formulated to meet NASA's low outgassing specifications and exceed ASTM E595 standards. These epoxies prevent outgassing, which can cause contamination that clouds optical products or interferes with electronic, semiconductor, and vacuum processes. Read more at <https://www.masterbond.com/properties/low-outgassing-adhesives> or contact technical support to discuss your application.

TECH SUPPORT

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Note to Editors:

For a full product description, please visit: <https://www.masterbond.com/newsrelease/ep53tc>

Check out new videos on our YouTube channel: <https://www.youtube.com/user/MasterBondVideo>

You can embed any of our videos on your website.

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