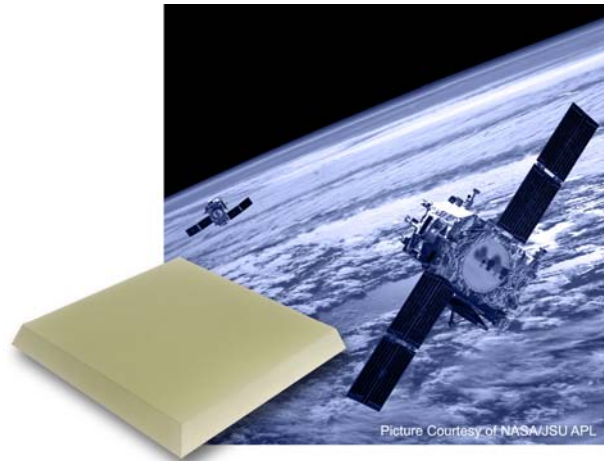


## **Norplex-Micarta NP500CR Thermoset Composite Provides Superior Thermal Insulation for NASA's STEREO Spacecraft**

POSTVILLE, IA – The Norplex-Micarta NP500CR thermoset composite was recently chosen for a component used in the launch of NASA's Solar Terrestrial Relations Observatory (STEREO). The material was chosen because it maintains its mechanical strength in extreme cold, a critical property for components used in outer space. In addition to sustaining cold temperatures, the composite has the shear, tensile, and compressive strength necessary to withstand the stresses created during the launch of the spacecraft. Also, while traveling through outer space, the composite is able to endure occasional impact from flying objects, as well as strong acoustic vibrations. The composite also maintains its high strength properties during thermal expansion and contraction experienced in space.



NP500CR material is being used as a spacer between multiple devices, including the spacecraft battery, and the brackets holding them in place within the STEREO spacecrafts. These spacers provide thermal isolation that prevents the temperature of one device from affecting the controls of another.

Comprised of two nearly identical spacecrafts, STEREO gathers images of the sun simultaneously from different angles to produce three-dimensional pictures of coronal mass ejections. STEREO observatories carry a number of mission-critical devices that must be thermally isolated from one another as they orbit the sun.

NP500CR is a glass epoxy thermoset composite that is rated to absolute zero (-273°C), and features excellent dimensional stability, at a weight that is approximately 25% that of steel insulation materials. The material also meets all NEMA G-10 requirements and is manufactured to the NIST G-10CR process specification for materials used in cryogenic applications.

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#### **About Norplex-Micarta**

Norplex-Micarta is the leading manufacturer of high performance thermoset composites. Norplex-Micarta's vast product line serves power generation, military/aerospace, oil & gas, medical devices, electrical devices, electronics assembly, construction, heavy industry, and transportation markets throughout Europe, Asia/Pacific, and The Americas. Norplex-Micarta is located at 665 Lybrand Street, Postville, IA 52162; Tel: 563-864-7321; Fax: 563-864-4231; E-mail: [info@norplex-micarta.com](mailto:info@norplex-micarta.com); Web: [www.norplex-micarta.com](http://www.norplex-micarta.com).

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