RT/duroid® PTFE Based Composites Meet Flammability Requirements for Oxygen Environments

RT/duroid® 5870 laminate has been evaluated for flammability in gaseous oxygen according to the procedures outlined in MSFC-SPEC-101 (Proposed), “Flammability Requirements and Test Procedures for Materials in Gaseous Oxygen Environments”, Test No. 1. Specimens without copper foil cladding at a nominal thickness of 0.015 inch (0.38mm) were granted a conditional approval as a Type 1 material for use in 6.2 psia (43 kPa abs.) oxygen environment. A Type 1 material is required to be found non-combustible when a strip is supported in a vertical position in the oxygen atmosphere with an energized ignition source at the bottom for a period of ten minutes.

The approval is conditional upon evaluation of each manufacturer's batch.

The results of the evaluation were stated in a letter from J.E. Kingsbury, Chief, Materials Division Propulsion and Vehicle Engineering Laboratory, National Aeronautics and Space Administration, George C. Marshall Space Flight Center, Huntsville, Alabama 35812. The letter was identified by file number R-P&VE-MC-68-94, and dated June 1968.