

Information Bulletin

April 2020

to Airtech distributors and sales team

NDT Results and Silicone Transfer for MG2 Tapes

Multiple forms of MG2 recently underwent extensive testing for out gassing during cure, silicone transfer during use/cure, and non destructive testing (NDT) detectability. MG2, MG2A, MG2R and MG2 Orange were all tested in parallel. All tapes performed extremely well in all testing. Detailed reports can be obtained from the Huntington Beach Technical Team.

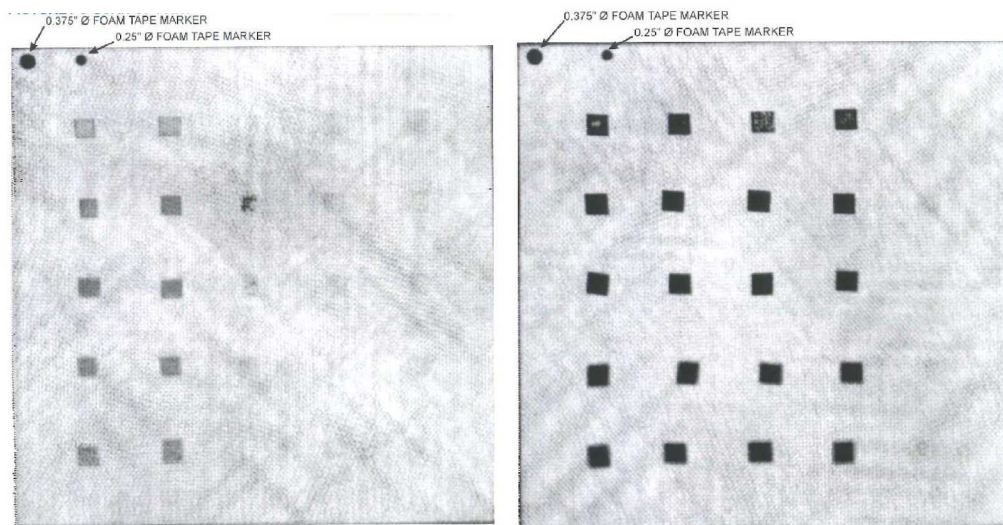
Silicone Transfer and Outgassing

Test panels were fabricated and cured from epoxy pre-preg after contact with the four flavors of MG2. The non-adhesive side of the tape was allowed to contact the pre-preg prior to cure. This same side was also allowed to remain in contact with the material during cure in an alternate location. Post cure, the samples were tested for extractable organic contamination using Fourier transform infrared spectroscopy (FTIR). Tape were tested in parallel by TGA to measure out-gassing by mass loss and in addition to the FTIR analysis the glass transition temperature (Tg) was analyzed against a control for the cured laminate. **All 4 of the tapes passed FTIR analysis for silicone contamination with no evidence of significant outgassing. The Tg for all for 4 of the tapes was found to be statistically equivalent to the control with no degradation to the resin from contamination.**

NDT Detectability

Test panels were fabricated with defects included in the laminate at various depths. The first panel contained MG2, MG2A, MG2R, and MG2 Orange between various layers in the laminate. This panel was compared to a control with different types of material to evaluate how well the tapes could be detected. **All 4 of the tapes passed with exceptional detectability showing a complete signal loss when compared to reference standards during C-scan. These standards included Release Ply F, released brass shims, and masking tape.**

First Panel from the left shows the NDI reference panel with two columns of masking tape, one row of released brass shim, and two columns of Release Ply F. The second panels shows the columns in the following order, MG2, MG2A, MG2R, MG2 Orange, and then a faint Release Ply F.



For more information, please refer to the TDS, SDS, or contact our Technical or Customer Service dept:

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