Create test panels using film interlayers in order to observe the bonding attributes of various films.

Different types of interlayers and interlayer process methods were evaluated.

The panels will be infused using Vacuum Assisted Resin Transfer Molding (VARTM).

All Panels were infused using a flexible adherent consisting of one layer of 24 oz. E-glass (in some cases 28 oz. S-glass) and a rigid adherent consisting of two layers of 96 oz. E-glass.

The samples are then tested according to the ASTM standard for Floating Roller Peel Test (D 3167).

- All of the test panels were infused using Vinyl Ester 8084 (resin) or FCS 2 (resin) and one of the following interlayers:
  - 5 mil Thick Ionomer
  - 1 mil. Thick Thermoplastic Polyurethane (TPU)
  - 1 mil. Thick Polysulfone (PSU)

- Panel Combinations:
  - Vinyl Ester & TPU
  - Vinyl Ester & PSU
  - Vinyl Ester & Ionomer
  - FCS 2 & TPU
  - FCS 2 & PSU
  - FCS 2 & Ionomer

In order to further test the properties of the film interlayer some fabrics are to be put into the hot press with either 5 mil. thick Ionomer or 5 mil. thick TPU.

The panels will be made utilizing films pressed at vacuum pressure.

The fabrics will be pressed at 90 PSI at 350 F for 1 hour.

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