

**Processing Guide
Secondary Insulation**

**PG-105 –Vacuum Pressure
Impregnating (VPI) Epoxy Resins
Dry Vacuum**

A member of  **ALTA**

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Process Step	Optimum	Minimum	Comments
<i>Preheat</i>	1 hour at 135 - 150°C(275 - 300°F) Once unit reaches temperature	None	Relax magnet wire, drives out moisture, thermosets tapes, assists in penetration
<i>Dry Vacuum</i>	2 hours at 29-30 in Hg	1 hour at 27 in Hg	Removes air to allow penetration of varnish.
<i>Part Temperature when resin is introduced</i>	50 – 55°C (120 - 130°F)	25 – 50°C (77°F – 120°F)	Temperature has a direct bearing on varnish penetration. If too low varnish will not penetrate fully. If too high varnish can be damaged
<i>Wet vacuum</i>	None	None	Pressure should be applied as soon as possible to assist with varnish penetration.
<i>Release vacuum</i>	Nitrogen	Dry Air or Atmospheric air for products not moisture sensitive	Recommended to release vacuum prior to pressurizing tank to insure the safest operation.
<i>Pressure</i>	2 hours 80-90 psi for coils with minimal taping. Add one hour for each layer of tape.	1 hour at 80 psi for coils with minimal taping. Add one hour for each layer of tape.	A short pressure cycle could reduce penetration.
<i>Drain Time</i>	15-30 minutes	10-15 minutes	Longer drain will re-capture more resin.
<i>Bake Schedule</i>	As recommended by product data sheet.	As recommended by product data sheet.	Full cure is required to develop all performance properties.

Please contact ELANTAS PDG, Inc. Technical Service if you have any questions.

Phone number 1.314.621.5700 Extension 717 or 1.800.325.7492 Extension 717

The above properties are typical values and are not intended for specification use.

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