Laminate Tools

A powerful, proven Windows stand-alone application to aid engineers in the design, analysis and manufacture of laminated composite structures.

Features summary:

- Proven draping technology
- Interfaces to industry standards (Nastran, Abaqus, ANSYS, HyperWorks, Femap, FiberSIM, CATIA, SolidWorks, Rhinoceros)
- CAD geometry import
- Quick and accurate specification of laminate designs reflecting the ply based physical composition of the structure
- Communication of structural details widely improved, as compared to traditional methods
- Analysis model generation
- Unique FEA post-processing
- Generation of accurate manufacturing data (such as ply flat patterns, phase book)
- Manufacturing data ready for PlyMatch and laser projection systems
- Time-saving methodology, allowing for design verification and optimisation

Benefits:

- Integrate design, analysis and manufacture
- Highlight potential problems early
- Reduce need for expensive physical prototypes
- Communicate laminate specification effectively
- Minimise material waste
PlyMatch™ Interface with a unique augmented reality ply placement solution for easy manufacture.

Import CAD geometry, for easy surface and curve selections.

Geometry

MANUFACTURE exactly what has been designed with minimal effort. Use the Laminate Tools flat pattern results to nest, cut and place material with PlyMatch or laser projection. Generate electronic plybooks for best results.

Manufacture

EXACTLY WHAT HAS BEEN DESIGNED WITH MINIMAL EFFORT. Use the Laminate Tools flat pattern results to nest, cut and place material with PlyMatch or laser projection. Generate electronic plybooks for best results.

View

VIEW, interpret, verify, share, communicate and safeguard all the composite materials information. Use industry-standard methods and proven technology to minimise design time.

Design

DESIGN the composites aspects for your structure. Build the entire Layup by simulating the draping of fabric material over complex surfaces. Review and make rapid changes before finalising the plybook.

ANALYSE the composite Layup by converting the global ply draping results to accurate local element material properties (laminates) for use in FEA.

Analysis

CHECK FEA results and use Laminate Tools to generate new Failure Indices, Margins of Safety and Reserve Factors, or even layer stresses. Examine results by loadcase, by layer, by global ply, layer by layer for each element, group worst elements, etc.

Check

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View

Drape it - Check it - Make it

www.anaglyph.co.uk