



ADVANCED CUSTOM MANUFACTURING

A Division of Plastic Reinforcements, Inc.

Call Us Today! 909-597-4771

Panel Design Questionnaire

Thank you for your inquiry regarding sandwich panels. In order for us to help design a panel that best meets your application, it is necessary for us to ask you some basic questions. Please take time to fill the enclosed questionnaire and return it to Advanced Custom Manufacturing as soon as possible. From the information provided, we can assist in designing the most cost effective panel for your requirement.

The intended use of this questionnaire is to provide information to help design a sandwich panel that best meets the structural requirements of the intended application within the specific cost range the customer desires.

Please answer these basic questions as best you can. This will assist ACM in helping design the optimum sandwich panel for your application.

We are looking forward for your early response and welcome the opportunity to build a future relationship together.

Sincerely,

Advanced Custom Manufacturing



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I. Design Objectives

1. What is the intended use of panel, in other words would it be Commercial or Aerospace Grade?
 - Structural:
 - Non-Structural:
 - Other (explain below):
2. What is your price objective?
3. What is your project timing?
4. How many panels do you need?
5. Explain application (Below):
6. Is a part drawing available?
7. What is the current material being used?

II. Physical Characteristics

1. Please indicate panel dimensions:
 - Width: _____(Inches)
 - Length: _____(Inches)
 - Thickness: _____ (Inches)
2. What is maximum allowable panel thickness? _____ (Inches)
3. What is minimum allowable panel thickness? _____ (Inches)
4. What is maximum allowable panel weight? _____ Lbs.
5. What is minimum allowable panel weight? _____ Lbs.



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6. Do you desire the edges of the sandwich panels to have edge closeouts?
7. On the core, would you like non-perforated or perforated?

III. Panel Composite Options

Please indicate what materials you desire for panel construction. A list of facing materials and core materials is provided for your selection.

Facing Material

Aluminum alloy (3003, 5052, 5056) _____

- Commercial Products: 1100-0, H14 – 3003-0, H14 – 5052H32, H34 – 5005H34 Anodized.
- Aerospace Products: 2024-0, T3 Alclad & Bare – 6061-0, T4, T6 – 7075-0, T6 Alclad & Bare
- Fiberglass Pre-preg
- Carbon Fiber Pre-preg
- Phenolic Pre-preg
- Kevlar Pre-preg

Please indicate face thickness

Top _____ (Inches)

Bottom _____ (Inches)

Core Material

Aluminum Honeycomb (alloy - 3003, 5052, 5056) _____

- FYI 5052 and 5056 core has corrosion resistant coating on it.

Aramid Fiber (Nomex/Kevlar) Honeycomb _____

Expand PVC Foam _____

Stainless Steel Honeycomb _____

Thermoplastic Honeycomb Cores (PP Polypropylene, PC Polycarbonate) _____

Other _____

Please indicate core thickness _____ (Inches)

Please indicate core density _____

Please indicate cell size _____

Perforated _____

Non-perforated _____

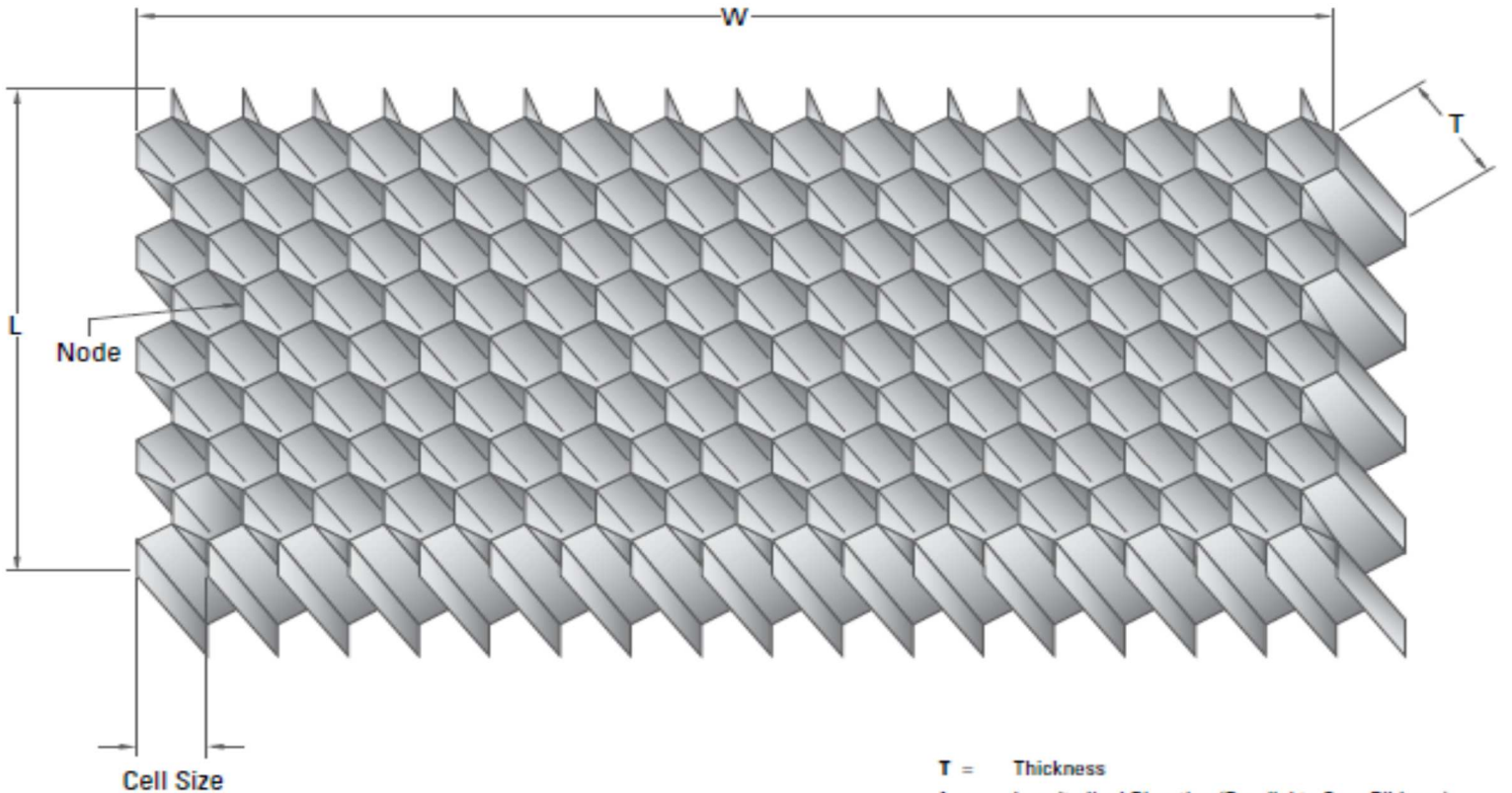
Please provide any additional information:



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Core Terminology



- T** = Thickness
- L** = Longitudinal Direction (Parallel to Core Ribbons)
- W** = Transverse Direction (Perpendicular to Core Ribbons)

Example: 0.500" x 48" x 96" = T x L x W

Cell Sizes: 1/8" – 3/8"
Densities: 1.0 pcf – 8.1 pcf
Sheet "Ribbon" (L): 48" typical
Sheet "Transverse" (W): 96" typical
Tolerances:
Length: +6", -0"
Width: +6", -0"
Thickness: ±.005" (under 4" thick)
Density: ±10%
Cell Size: ±10%