HILL INDUSTRIES INC.

PRODUCT DATA

C-CLAD Aluminum Foil

C-CLAD is aluminum foil that has been treated to permit subsequent bonding of the foil to other substrates or simultaneous bonding with the fabrication of reinforced thermoset plastic articles.

Specific use of the **C-CLAD** variations defined here are for electro-magnetic inductance (EMI) protection on non-electrically conductive plastic parts. The foil is .002, .004, and .008 inch thick, dead soft temper. Two alloys are available. Additional thicknesses, widths, and alloys can be supplied on request. The foil treatment and adhesive are formulated in such a manner that the 90° peel strength of the foil from the plastic surface exceeds one pound per inch during exposure to condensing humidity at 120°F for more than 4 hours. Dry elevated temperature 90° peel strength exceeds ½ pound per inch up to 450°F.

The variations are:

C-CLAD J 250/350-002

C-CLAD "J" is 1235 aluminum alloy, .002 inch thickness. This foil is applied onto parts during initial fabrication and co-cured with the prepreg, or in secondary during applications **in conjunction with one ply of prepreg**. The treated foil has a very thin layer of dry, non-tacky adhesive. During cutting for sizing, any foreign materials on the adhesive surface may be removed by wiping with a clean dry cloth. After layup of the C-CLAD on the part it must be cured at elevated temperature and pressure. It can be cured at either 250°F to 270°F (121°C to 132°C) or 350°F to 370°F (177°C to 188°C) for 1½ hours at either temperature. Post cure of parts at 400°F or higher can be done without restraint and without damage to the foil or its bond to the composite. Standard rolls are 36, 60 and 72 inches wide. Total sq. ft. is 1,070 per roll.

C-CLAD N 250/350-002

C-CLAD "N" is 1235 aluminum alloy .004 inch thickness. It is applied the same as the C-CLAD J. It is available for EMI applications requiring additional metal thickness, and applications of electrical splicing and grounding plates. Standard rolls are 60 inches wide. Total sq. ft. is 650 per roll.

C-CLAD T 250/350-002

C-CLAD "T" is 1145 aluminum alloy .008 inch thickness. It is applied the same as the C-CLAD J and N. It is available for EMI applications requiring additional metal thickness, and applications of electrical splicing and grounding plates. Standard rolls are 48 inches wide. Total sq. ft. is 360 per roll.

C-CLAD M 150/350-002 Splice

Splice is a treated strip of .004 inch thickness foil 2½ inch width. It contains hole-outs and the face surface is treated with an aluminum conversion coating to improve corrosion resistance. The strip is placed face down covering each side of a foil construction joint to effect an electrical bond. The outer bondable side is covered with a suitable prepreg or adhesive to capture the splice strip to the EMI foil.

Packaging and Storage:

C-CLAD foils are not temperature sensitive and may be stored at ambient temperatures (95°F) for at least five years, based on present data.

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