

Materials used to cover models

Except for elastic launched gliders most indoor flying models use “open bay” construction with ribs and spars. The framework of the flying surfaces will need to be covered with a relatively light weight material.

Covering can be divided into two categories; Paper and Film. Paper generally means tissue paper of which there are many types. Wrapping tissue is fairly heavy at 1.2 grams per 100 sq inches. The lightest tissue is Esaki Japanese tissue and weighs 0.85 grams per 100 square inches. Condenser Paper is difficult to work with and ranges from 0.34 grams to 0.57 grams per 100 square inches.

Films used to cover indoor models can be as common as kitchen wrap and dry cleaning bags to exotic materials intended specifically for indoor models. Kitchen wrap such as Saran™ and Glad Wrap™ is a good choice for initial covering attempts. At 0.7 grams per 100 square inches it is lighter than Esaki tissue. Many of the indoor film coverings are polyester, often called Mylar. Mylar, by its trade name, can be purchased in many thicknesses. All but the quarter mil (0.00025”) thickness Mylar will be heavier than the kitchen wraps. Ultra film is 0.17 grams per 100 square inches. Super Ultra Film is extremely thin at 1 micron (one thousandth of a millimeter) thick. A 100 square inch piece of Surer Ultra Film will weigh less than one tenth that of kitchen wrap. This super light weight film has a significant down side for the new builder in that it is difficult to work with AND COSTLY.

The type of covering to be used should take into consideration any rules for minimum and/or maximum mass of the model. It makes no sense to use a costly super light covering then add a lump of clay ballast to reach a minimum mass.