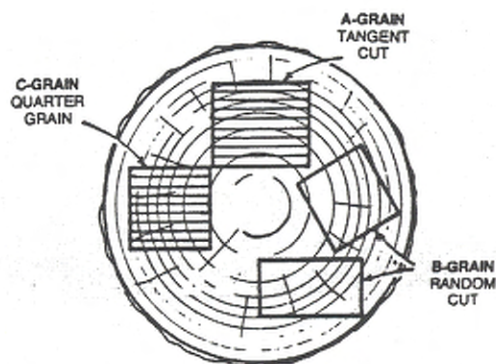


Balsa Grain ID Chart — Learn How to Identify All Three Grain Types

Tips From Sig Manufacturing Company

In selecting balsa sheets for use in your model, it is important to consider the way the grain runs through the sheet as well as the weight of the sheet. The grain direction actually controls the rigidity or flexibility of a balsa sheet more than the density does. For example, if the sheet is cut from the log so that the tree's annular rings run across the thickness of the sheet (A-grain, tangent cut), then the sheet will be fairly flexible edge to edge. In fact, after soaking in water some tangent cut sheets can be completely rolled into a tube shape without splitting. If, on the other hand the sheet is cut with the annular rings running through the thickness of the sheet (C-grain, quarter grain), the sheet will be very rigid edge to edge and cannot be bent without splitting. When the grain direction is less clearly defined (B-grain, random cut), the sheet will have intermediate properties between A and C grain. Naturally, B-grain is the most common and is suitable for most jobs. The point to bear in mind is that whenever you come across pure A-grain or C-grain sheets, learn where to use them to take best advantage of their special characteristics. The following chart illustrates the 3 basic grain types for sheet balsa and lists the most appropriate uses for each.



CROSS-SECTION OF BALSA LOG



A-Grain sheet balsa has long fibers that show up as long grain lines. It is very flexible across the sheet and bends around curves easily. Also warps easily. Sometimes called "tangent cut."

Do: Use for sheet covering rounded fuselages and wing leading edges, planking fuselages, forming tubes, strong flexible spars, HL glider fuselages.

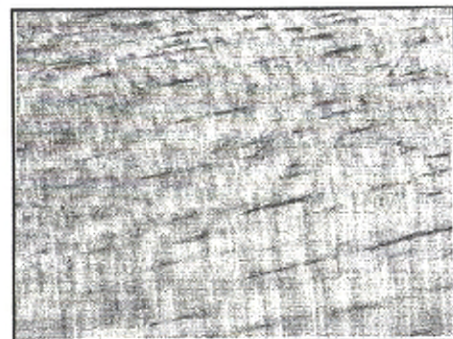
Don't: Use for sheet balsa wings or tail surfaces, flat fuselage sides, ribs or formers



B-Grain sheet balsa has some of the qualities of both type A and type C. Grain lines are shorter than type A, and it feels stiffer across the sheet. It is a general purpose sheet and can be used for many jobs. Sometimes called "random cut."

Do: Use for flat fuselage sides, trailing edges, wing ribs, formers, planking gradual curves, wing leading edge sheeting.

Don't: Use where type A or type C will do a significantly better job.



C-Grain sheet balsa has a beautiful mottled appearance. It is very stiff across the sheet and splits easily. But when used properly, it helps to build the lightest, strongest models. Most warp resistant type. Sometimes called "quarter grain.":

Do: Use for sheet balsa wings and tails, flat fuselage sides, wing ribs, formers, trailing edges. Best type for HL glider wings and tails.

Don't: Use for curved planking, rounded fuselages, round tubes, HL glider fuselages or wing spars.