

# LITESPAN

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– a strong, tough, synthetic material to replace tissue and dope.

LITESPAN is a very light and strong synthetic material which is airtight, waterproof, resistant to diesel and glow fuels. It can be painted with most model paints – so it is an excellent material to apply to balsa or other surfaces to prepare them for painting. It is heatsealed to the model (after coating the model with Balsaloc adhesive), and then tightened by extra heat.

• **Preparation.** Fill all cracks and hollows. Sand all parts to be covered to remove bumps or unevenness which would show through the covering. Wipe away all sanding residues. There are two methods of applying Litespan depending on whether the part being covered is an 'open' framework or is a 'solid' surface such as sheet balsa.

• **OPEN FRAMEWORK.** With a small piece of plastic sponge apply a very thin coat of Balsaloc to the framework. Pay particular attention to the outer edges (leading and trailing edges and longerons). Areas of sheet balsa should be coated all over. Allow the Balsaloc to dry (15–30 minutes). Cut a panel of Litespan at least 1" larger all round than the framework to be covered and lay the Litespan on the framework. Set your iron to between 90°C and 100°C and tack the Litespan in place at a few points around the edges, using the toe of the iron. While tacking, gently pull the Litespan to get a smooth fit without large wrinkles. Do not try to get the Litespan 'drum-tight', just smooth and wrinkle free. Reheating and peeling back while hot allows the Litespan to be repositioned. Then seal the Litespan all round the edges of the frame with the iron. Trim surplus Litespan from round the edge with a sharp blade and reseal the edges. Where panels of Litespan meet and overlap, the overlap has to be coated with Balsaloc (and dried) so it can be ironed down. It is best to apply this Balsaloc with a fine brush BEFORE trimming away the surplus Litespan.

• **SHRINKING.** Increase the iron temperature to between 125°C and 140°C. Shrink the Litespan by slowly sliding the iron across the surface of the Litespan – just lightly touching the surface. Moderate heat from a heat gun can also be used for shrinking. Check frequently while shrinking that you are not introducing warps in wings or tailplanes. If a warp occurs then twist the panel against the warp and reheat, holding the twist until the panel has cooled. Be careful not to bruise the Silver with too much pressure from the iron. Work slowly and methodically, shrinking all areas. Try not to reheat edges, or they can pull back and allow the panel to slacken. A 'Mini-shoe' on the toe of your iron allows heat to be applied accurately near edges, without heating the adhesive at the edge. Litespan has only a small amount of

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shrinkage, so it is important that covering is smooth and wrinkle free BEFORE starting to shrink up. Do not rely on shrinking to remove large wrinkles – spend extra time at the sealing stage to eliminate excess slackness and large wrinkles. **Caution:** Using higher temperatures to shrink will not make Litespan tighter, but will make it more likely to slacken off later and require reshinking (see below).

• **SOLID SURFACES** such as sheet balsa, ply and veneer. With a scrap of moistened plastic sponge, apply a thin coat of Balsaloc all over the surface to be covered. Cut a panel of Litespan oversize and tape it down on a smooth surface and apply a very thin coat of Balsaloc. Allow to dry. Place the coated side of the Litespan on to the coated surface and iron down with a cool iron (about 90°C). Start at the centre and iron outwards towards the edges to avoid trapping air under the Litespan. If the Litespan wrinkles around the iron – lower the iron temperature. Litespan can be contoured around slight double curves by heating and gently pulling. For large areas of double curvature it is easiest to cut the Litespan into 'fingers' which are ironed down in succession.

• **TRIMMING.** Shapes cut from Balsaloc-ed Litespan can be ironed down on to the main covering. Litespan can be painted with Solarlac for camouflage or decoration. Other paints may be used but check first for adverse effects by trials on some scrap Litespan panels.

• **RESHRINKING.** The very high strength of Litespan is due to a network of interwelded polyester fibres. All plastic materials (including polyester) have a high thermal expansion and after application may lose tension after exposure to extremes of temperature. Tension is easily regained by reshinking with a cool iron or low temperature heat gun PROVIDED that the material has not been overheated when first applied.

Litespan may be applied with either 'glossy' side or 'dull' side showing. Silver is applied 'silvery' side out.

<b>Colours</b>	Yellow, Orange, Red, Blue – tissue grain colours. White, Black, Silver, Dark Green (WW1), Cream (Antique) – scale colours which are more opaque than tissue colours.
<b>Weight</b>	Tissue colours 28–30 gsm (under 1 oz per square yard). Scale colours 32–35 gsm (approx 1 oz per square yard).

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