

FASTENING METHODS FOR BELTING

SEWING

Typically, machines used for sewing heavy materials such as leather, can handle BioThane belting. However, BioThane belting is not leather, and must be handled differently. *Following are basic guidelines for sewing machines and thread.*

- For continuous feed use a walking foot, or compound feed sewing machine with a toothed plate.
- The key to sewing BioThane belting is close control over thread tension and lubrication. Thread tension must be higher than for sewing leather, and only lubricated or bonded thread is recommended.
- Ready-wound bobbins will keep thread tension consistent. Changing gearbox settings to reduce speed and increase power produces a tighter, more uniform stitch pattern.
- Spraying thread with Silicone improves sewing, and either “MB” or “GM” treatment also helps performance. The most commonly used thread weights are #69, #92, and #99.
- To sew BioThane belting use needles with a sharp point. Diamond point and standard needles will bring the best results. Teflon coated needles have not performed well on our belting. Choose needles that have grooves twice the size of the thread being used so the thread is forced through the stitch. The maximum recommended stitch pattern is 6 stitches per inch.
- Sewing BioThane belting tends to dull any needle, so be sure to replace needles before they lose their effectiveness.

ADHESIVES

If the application calls for gluing together two pieces of BioThane belting, use an adhesive that “bites” into the belt’s coating. We have found that Loctite Prism 401 adhesive produces a good temporary bond. Prism 401 is used to hold the belting together until a final bond can be made. For more permanent bonds Loctite Superbonder 409 has been used. For comprehensive information contact Loctite at 800-323-5106.

RIVETING

Holes can be pre-punched, or drilled with a hole-diameter slightly smaller than the rivet’s shaft diameter. Some machines have sufficient power to drive the post through the belting without pre-punching holes.

GROMMETING

Typically size “0” stainless steel grommets with washers are used. Please contact us for more information, we will be glad to share our experience.

ALTERNATIVE WELDING TECHNIQUES

Rotary Hot Air and Radio Frequency (RF) welding are both effective methods for bonding BioThane to itself or to compatible thermoplastic surfaces. Both methods form a strong molecular bond when hot air or RF energy is directed to the bonding area. Rotary hot air welders work best for welding long, continuous lengths, while RF welders are better suited for short lengths or small welding areas.