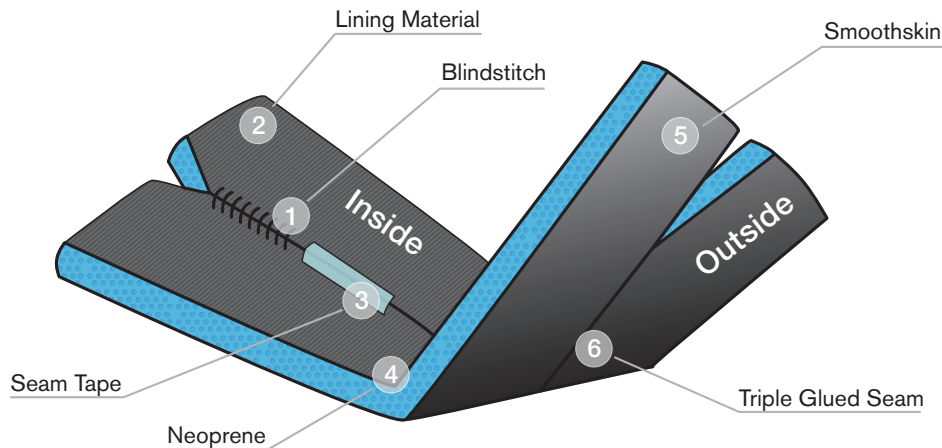


WETSUIT CONSTRUCTION AND TERMINOLOGY

Triathlon wetsuits are made specifically for surface open water swimming. They are traditionally constructed of very buoyant and flexible smooth skin neoprene, and are designed to fit snugly.

- A properly fitting wetsuit allows you to swim 5-15 seconds faster over 100 meters. The suit gives you buoyancy and compression, and gives you perfect body positioning in the water, and keeps you warm.
- Tri wetsuits are designed to fit tighter for to prevent water from entering the wetsuit. In the event that some water does get in, the tight fit keeps it from pooling and creating drag. Also, the wetsuit may stretch a bit when wet and a tight fit will minimize that
- The Smooth Skin rubber on the outside is not as durable or as sturdy as neoprene which has fabric on the outside, so you must be careful not to pull too hard on a small area of the suit, or pinch, yank, or scrape the outside smooth surface.
- The seams are glued, then Blindstitched on the inside with a curved needle machine for a flexible water-tight seam. Though these seams are very strong, it is necessary to be careful with those as well.

Neoprene Diagram 1a.



- 1. Blindstitch:** For smooth skin triathlon wetsuits, stitching is only on the inside of the suit. The seam is double or triple glued first, then pushed together by hand. After the glue has cured, the suit is sewn on a blindstitch machine with a curved needle set to go only halfway through the neoprene. This creates a sturdy, flexible, comfortable, and waterproof seam for smooth skin suits.
- 2. Lining Material:** which is laminated to the neoprene. GIGA 40 has both fabric and cell rubber, other suits have polyester or nylon jersey inside. Profile fabrics are chosen for maximum comfort, stretch, and water-resistance.
- 3. Seam Tape:** Either a glued neoprene tape, or a fabric heat tape to reinforce high-stress areas.
- 4. Neoprene:** Yamamoto # 39 or 40, both are low-density for high buoyancy and flexibility. Yamamoto is known for producing the highest quality and most technologically advanced neoprene available.
- 5. Outside Smoothskin:** All Profile wetsuits have an SCS (Super Composite Skin) coating on the outside which reduces friction and allows swimmers to glide through the water.
- 6. Triple Glued Seam:** All that is visible from the outside is the thin line of glue holding the panels together. The seams are double or triple glued together, hung to dry and allow the glue to cure, then stitched on the inside.