Garment Pre-Assembly Applications in Garment Manufacturing

Durafil Water Soluble Thread (WST)

Technical Application Reference Document

1. Introduction

Garment pre-assembly is a production stage where garment components are temporarily joined, aligned, or stabilized before permanent sewing operations are completed.

Pre-assembly operations are commonly used to improve handling stability, maintain alignment accuracy, simplify downstream sewing operations, and support controlled garment construction during production.

Temporary stabilization is often required to hold garment sections in position throughout intermediate assembly stages.

Accurate garment pre-assembly is important for:

- Assembly consistency
- Component alignment
- Handling control
- Sewing stability
- Production efficiency

Durafil Water Soluble Thread (WST) can be used as a temporary stitching solution during garment pre-assembly operations.

After washing, the temporary stitches dissolve and disappear.

---

2. Production Challenge

During garment manufacturing, components often require temporary stabilization before final sewing operations.

Common production challenges include:

- Movement of garment sections during handling
- Shifting of layered assemblies
- Instability during intermediate sewing stages
- Maintaining alignment between garment components
- Distortion of lightweight or flexible fabrics

Factories traditionally use temporary stitches to stabilize garment sections before permanent attachment.

Because garment components may move independently during assembly operations, maintaining stable positioning throughout production can become difficult.

3. Traditional Method

In conventional garment production, temporary garment pre-assembly is often achieved using:

- Standard sewing thread
- Manual tacking
- Temporary holding stitches

After permanent stitching is completed, operators manually remove the temporary stitches.

---

4. Limitations of Traditional Temporary Stitching

Manual removal of temporary stitching may create several production issues:

- Additional labour requirement
- Slower finishing operations
- Risk of accidental fabric damage
- Inconsistent removal quality
- Increased handling time

On delicate or appearance-sensitive garments, manual stitch removal may increase the risk of:

- Surface damage

- Yarn pulls
- Distortion of garment sections
- Marking
- Accidental cutting of the garment

Repeated handling during stitch removal may also disturb garment alignment and assembly consistency.

---

5. Durafil Water Soluble Thread (WST) Solution

Durafil Water Soluble Thread (WST) provides a temporary stitching solution for garment pre-assembly applications.

The thread behaves like a normal sewing thread during assembly operations, holding garment components in position during production.

During washing, the temporary stitches dissolve and disappear.

This removes the need for manual stitch removal after sewing.

---

6. Typical Garment Pre-Assembly Applications

Durafil Water Soluble Thread (WST) may be used in applications including:

- Temporary joining of garment sections
- Layered fabric stabilization
- Intermediate assembly holding
- Shaped garment alignment
- Temporary seam positioning
- Stabilization before permanent stitching

The thread may be used wherever temporary garment stabilization is beneficial during production.

---

7. Operational Benefits

Using Durafil Water Soluble Thread (WST) for garment pre-assembly can provide several operational advantages.

Improved Assembly Stability

Temporary stitches help maintain accurate positioning of garment sections during sewing and handling operations.

Reduced Manual Labour

Because the temporary stitches dissolve during washing, manual stitch removal operations can be reduced.

Reduced Risk of Fabric Damage

Because temporary stitches dissolve during washing, the risk associated with manual cutting or pulling of stitches is reduced.

This is particularly beneficial for:

- Lightweight fabrics
- Delicate fabrics
- Layered garment constructions
- Tightly woven fabrics
- Appearance-sensitive garment areas

Improved Production Flow

Garment assembly operations can proceed without requiring a separate stitch removal operation after sewing.

Cleaner Garment Finishing

After washing, the temporary stitching disappears, leaving only the permanent seam construction.

8. Garment Types

Garment pre-assembly applications using Durafil Water Soluble Thread (WST) may be suitable for:

- Shirts
- Uniforms
- Jackets
- Fashion garments
- Layered garment constructions
- Appearance-sensitive garment assemblies

Production trials are recommended for specific garment constructions.

---

9. Production Outcome

Using Durafil Water Soluble Thread (WST) in garment pre-assembly operations may help garment manufacturers:

- Simplify assembly workflow
- Reduce manual finishing operations
- Improve assembly alignment consistency
- Reduce handling complexity
- Improve operational efficiency

10. Related Application Areas

Additional temporary stitching applications may include:

- Temporary seam holding
- Collar alignment
- Cuff positioning
- Decorative panel alignment
- Multi-layer fabric positioning

---

11. Disclaimer

Performance depends on garment construction, washing conditions, and production processes.

Users are responsible for conducting suitability trials under actual production conditions prior to commercial use.

---

12. Technical Support

Email - info@durafil-group.com