Application Notes

Durafil Water Soluble Yarn

20°C Soluble | Ne 40/1

1. Product Description

Durafil Water Soluble Yarn is a PVA-based temporary process yarn engineered to dissolve in water under controlled conditions.

It is designed for weaving, knitting, and technical textile processes where temporary support, stabilization, separation, or structure is required during manufacturing and later removed by washing.

This enables production of constructions that may be difficult or impossible using conventional permanent yarn systems.

2. Main Functional Uses

The yarn is primarily used for:

- Temporary support yarn
- Structural stabilisation during knitting or weaving
- Separation yarn for removable constructions

- Carrier yarn for delicate fibres
- Pattern development using dissolvable sections
- Process aid for fragile yarn systems

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3. Typical Applications

A. Superfine Fibre Weaving

Used as a support yarn when weaving delicate fibres such as:

- Cashmere
- Alpaca
- Fine wool
- Speciality blends

Helps improve weaving control before later dissolution.

B. Knitting Stabilisation

Used to support loop formation, tension control, or temporary structure in knitted fabrics.

C. Lace and Open Structures

Used as a removable base yarn for open constructions, lace effects, and engineered void spaces.

D. Fragile Yarn Reinforcement

Used temporarily with weak or sensitive yarns during processing.

E. Pattern Formation

Used where selective removal creates texture, openness, or design effects.

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4. Key Benefits

- Dissolves at approximately 20°C and above under suitable conditions
- Enables temporary support without permanent contamination
- Suitable for delicate and superfine fibre systems
- Can improve process stability
- Can enable new fabric constructions
- Leaves no residue when fully dissolved under correct conditions

5. Recommended Use Method

1. Introduce Durafil Water Soluble Yarn into selected construction areas.
2. Complete weaving or knitting process.
3. Process fabric using suitable water dissolution conditions.
4. Confirm complete removal before drying or finishing.
5. Approve final structure and appearance.

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6. Typical Dissolution Systems

Depending on user process:

- Cold / ambient water wash
- Continuous wash line
- Jet / garment wash system
- Wet finishing process
- Controlled laboratory wash trials

Trials are essential.

7. Common User Sectors

- Luxury woven textiles
- Knitwear producers
- Lace manufacturers
- Technical textiles
- Fine fibre processors
- Innovation textile mills

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8. Important Process Variables

Performance depends on:

- Water temperature
- Liquor ratio
- Movement / agitation
- Fabric density
- Accessibility of trapped yarn
- Wash duration
- Water flow through structure

9. Important Cautions

- Always keep yarn dry before use.
- Avoid humidity exposure before processing.
- Always run trials before production.
- Confirm complete dissolution before drying.
- Incomplete removal may occur if wash conditions are insufficient.
- Different constructions may require different wash conditions.

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10. Important Note

Final performance depends on process conditions and system control.

Users are responsible for testing, process adjustment, and validation before production.

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11. Contact for Technical Support

For technical queries - Email: info@durafil-group.com