



FLAME-RETARDANT COTTON COATED POLYESTER CORE-SPUN SEWING THREAD

Poly-Strong PC CFR®

DURAK Poly-Strong (PC) CFR® is a cotton-coated continuous polyester core sewing thread produced by adding flame-retardant characteristics. The thread surface is coated with flame-retardant chemicals in accordance with the standards of chemical coating method. Even after 20 washes, it maintains its flame-retardant property according to NFPA 701. When removed from the heat source, the flame extinguishes immediately instead of spreading as in regular polyester threads. Thanks to its finishing processes that enhance sewing performance, regular structure, optimum hairiness level and various thickness options for different fabrics, it provides an excellent sewing appearance on a wide range of materials, from thin fabrics to thick denim.



Product Properties

- ✦ Flame retardant structure.
- ✦ High tenacity continuous filament core.
- ✦ Superior sewing performance.
- ✦ Prevents needle heating thanks to its cotton.
- ✦ Ideal for flame-retardant garments requiring strong seams.

Poly-Strong PC CFR®

Areas of Use

- Occupational Safety Products
- Decorative Products
- Furniture
- Home Textile

Physical Properties

Melts at 260°C and softens at 220 - 240°C.

Shrinkage is less than 1% at 150°C.

Chemical Properties

Mineral acids: Resistant to most mineral acids.

Alkalis: Unaffected by weak alkalis, moderately resistant to strong alkalis.

Organic solvents: Unaffected by common solvents, soluble in some phenolic compounds. Cotton swells in caustic, no significant loss of tenacity.

Bleaching: Polyester part is unaffected while the cotton part bleaches with hypochlorite and peroxides.

Microorganisms (Mildew/Rot): Unaffected.

Washing / Dry Cleaning: Unaffected.

Moisture regain: 0.4%



Product Options

DURAK Poly-Strong(PC) CFR® offers a wide range of colors in a variety of meter sizes and thicknesses.

Storage Conditions

Must be stored away from heat, humidity and direct sunlight.



Color Fastness

Washing fastness at 60°C	ISO 105 C06	Min. 4
Water fastness	ISO 105 E01	Min. 4
Rubbing fastness	ISO 105 X12	Min. 4
Hypochlorite fastness	ISO 105 N01	Min. 4
Dry cleaning fastness	ISO 105 D01	Min. 4
Perspiration fastness	ISO 105 E04	Min. 4
Artificial light fastness	ISO 105 B02	Min. 4

• NFPA 701: Standard Methods of Fire Tests for Flame Propagation of Textiles and Films

POLYSTRONG(PC) CFR	LOSS OF MASS	BURN TIME
Before washing	%6,61	No drippings
After 10 washes	%3,09	No drippings
After 15 washes	%2,80	No drippings
After 20 washes	%1,64	No drippings



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Thickness and Strength Chart

Tkt No.	Nominal Tex	Strength CN	Elongation %	Needle Size (Nm)
20	120	5.900	20 - 28	120 - 140
30	105	4.900	20 - 28	120 - 140
36	78	3.950	20 - 28	110 - 130
50	60	2.800	20 - 28	100 - 120
75	40	2.000	18 - 24	90 - 100
120	24	1.020	18 - 24	75 - 90



Other Poly-Strong PC Sub-Brands

- Poly-Strong PC®**

Cotton-coated polyester corespun sewing thread. It provides high tenacity thanks to its continuous polyester core while its cotton surface prevents needle heating.
- Poly-Strong PC WR®**

Cotton-coated polyester corespun sewing thread with water repellent properties. It has a PFC-free water repellent surface coating.
- Poly-Strong PC UV®**

Cotton-coated polyester corespun sewing thread with UV resistance. Poly-Strong(PC)UV® minimizes UV destructions such as discoloration, low abrasion resistance and loss of tenacity.