

**General information:** Istrona® K is a registered trademark for mechanically crimped polypropylene staple fiber, based on polypropylene.

**The fiber is produced in the following types:**

Istrona® K	standard,
Istrona® K BST	anti-microbial,
Istrona® K LS	high UV stability,
Istrona® K LSU	ultra-high UV stability,
Istrona® K FR	reduced flammability

**Basic characteristics:**

The polypropylene staple fiber Istrona® K is produced and supplied in raw-white or spun-dyed in a wide range of colors according to the current sample card or a mutual agreed sample. The fiber has a circular cross section and its surface is treated with a proper hydrophobic or hydrophilic lubrication which positively affects its further treatment. The PP staple fiber is resistant to acids, alkalis, oil and other chemicals. When compared with other synthetic fibers it absorbs very little water (less than 0,1 % at 20 °C and 65 % relative air humidity). As a result dirt particles do not penetrate into the fiber and can easily be removed from the surface. The fiber does not dissolve in any solvent at the room temperature. The softening point of the fiber is 140 °C and melting point is 165 °C. It is resistant to microorganisms and moulds and does not provoke any allergic reactions. The PP fiber has the lowest specific gravity (0,91 g/cm<sup>3</sup>) of all types of synthetic fibers.

Properties:	Denier dtex	Cut Length mm	Strength cN/dtex min.	Elongation % min.	Crimps per 10 mm	Content of preparation %
Istrona® K	9/11/17/22	60 – 150	2,0	50	min.3	0,3 – 0,7
Istrona® K FR	9/11/17/22	60 – 150	2,0	50	min.3	0,3 – 0,7
Istrona® K LS	9/11/17/22	60 – 150	2,0	50	min.3	0,3 – 0,7
Istrona® K LSU	9/11/17/22	60 – 150	2,0	50	min.3	0,3 – 0,7
Istrona® K BST	9/11/17/22	60 – 150	2,0	50	min.3	0,3 – 0,7

**Main fields of application:**

**Istrona® K** is designed before all for manufacturing of non-woven needle-punched textiles of middle and high square weight, used not only as floor covering but also as technical textiles for filtration, and as drainage, reinforcement and separation felts in civil engineering and farming. The materials are used also for drainage, reinforcement of water edges and banks, and for similar applications, where, in comparison with the polyamide and polyester fibers, Istrona® K has an outstanding residual strength in wet state, high chemical resistance and resistance against microorganisms and moulds. Because of their low density and negligible water absorbency they can be used as filling materials.

**Istrona® K FR** is staple fiber with a reduced flammability which contains a flame retardant. The limit oxygen value is minimum 36 vol. % and the path of destruction of the sample by flame with the vertically oriented textiles and fibers is maximum 5,5 cm. The fiber is used for production of floor coverings and non-woven technical textiles, where a reduced flammability of the material is required.

**Istrona® K LS and K LSU** are staple fiber with high UV stability, designed for production of the textiles for outside use. Light stability of a fiber is expressed as a time in which the fiber strength drops of to a half of its original value. The light stability of polypropylene LS staple fiber is min. 2 500 hours and of the LSU staple fiber is min. 3 500 hours. Conditions for determination of the light stability: Xenotest 450, BPT 40 °C, relative humidity of the air 50 %, day and night cycle.

**Istrona® K BST** has a very good bacteriostatic to biocidal effect, i.e. it prevents growth of a wide spectrum of the Staphilococcus Aureus and Escherichia Coli type bacterial strains. It is suitable for production of the textile materials, applied especially in the case of high risk of contamination of a large number of people, where the requirements for hygienic characteristics of these products are very high. The bacteriostatic efficiency, evaluated by the BNCM method, is minimum 50%. The main fields of application include filling materials for application in furniture manufacture, filtration materials for air conditioning and treatment of drinking water, filtration materials for food applications in accordance with the WHO criteria, and floor coverings.

**Packing and storage:** The packing unit is one bale of the staple fiber. The weight of one bale is approximately 220 - 250 kg, with the dimensions of approx. 1,2 x 1,0 x 0,75 m. Each bale is wrapped in a PE foil. The fiber is stored in a dry place, protected from atmospheric exposure.

The given data are only of an informative character and are not comprehensive. Further information can be obtained:

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