



World's Leading Acrylic Fiber Producer
Aksa Presents:



PillouT (APL20)

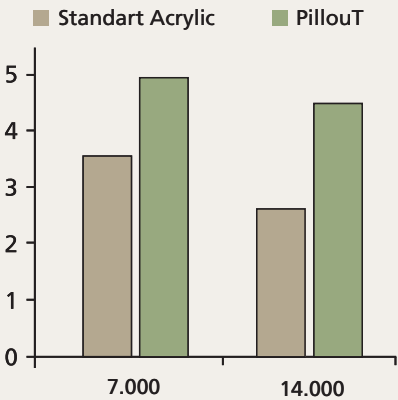
Providing low pilling properties to a garment is based on bringing out the brittleness of acrylic fiber to forefront. As a result of the fragile nature of the PillouT fiber, beads fall off of the garments made from Aksa PillouT (APL20) fiber giving the garment a clean look without sustaining structural deformation.

Analytically, the brittleness of the fiber is measured by elongation and tenacity of a knot in the fiber. When this value is lowered, brittleness increases and pilling performance is improved.

In this context, the tenacity and elongation of the standard and PillouT fibers are compared as below.

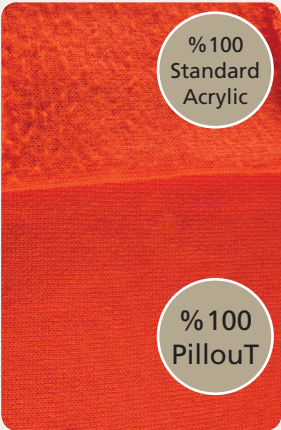
	Dtex	Unit	Aksa Standard AK700	Aksa PillouT APL20
Knot Tenacity	3,3	G/TEX	25	8
Knot Elongation		%	35	5
Knot Tenacity	2,75	G/TEX	25	9,5
Knot Elongation		%	35	6,5

Fibre Properties



	7.000 cycle	14.000 cycle
100% Standard Acrylic	3-4	2-3
100% PillouT	5	4-5
100% Wool	3	2-3
50% PillouT + 50% Wool	4-5	4
100% Cotton	2-3	2
50% PillouT + 50% Cotton	4-5	4

Tests are performed at ICI Pilling Box according to rule of TS EN ISO 12945-1:2002.
For the best pilling performance, min Alfametric 70 in the yarn and 12-14 fine gauge setting for the knitting machine is advised.



CONVERTER OPERATING PERFORMANCE:

As the product is brittle, APL20 PillouT tow is not suitable for high draft during stretch breaking. Due to its low elongation, in the high bulk process the final shrinkage will be lower than 100% standard fiber's. If a higher shrinkage desired, Aksa can recommend different Unrelax (AR) fiber compositions with standard (AK 700) fiber.

To run the APL20 PillouT fiber as Relax, drawing frame draft values should be kept low. Examples of Relax working conditions are provided below. However, these settings may be changed according to climate control, seasonal conditions and machine conditions. Below are some recommended settings:

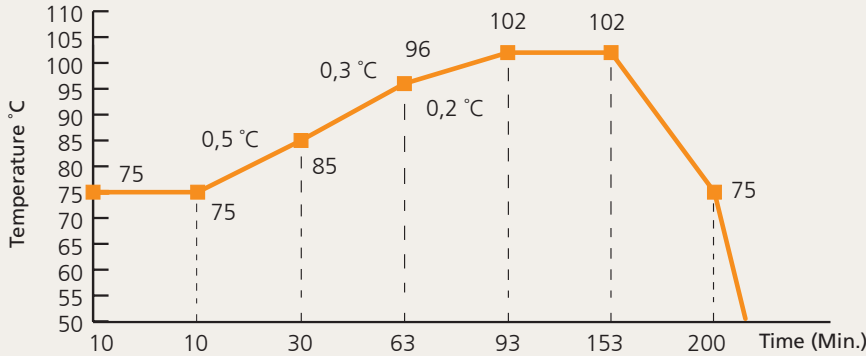
SEYDEL 870											
SEYDEL 870	G1		G2		G3		G4		G5		G6
	21		25		22		50		40		34
		1,09		1,14		1,34		1,25		1,49	
TOTAL DRAFT			3,31								
SEYDEL 880											
SEYDEL 880	G1		G2		G3		G4		G5		G6
	20		18		23		24		21		23
		1,11		1,11		1,27		1,42		1,57	
TOTAL DRAFT			3,76								
TB10 / TB11											
TB10/TB11	G1		G2		G3		G4		G5		G6
	30		27		24		50		40		34
		1,11		1,13		1,34		1,25		1,45	
TOTAL DRAFT			3,28								

DYEING:

Given by its nature, PillouT fiber absorbs dyestuffs slower than standard acrylic fiber, while achieving the same tones at the end of the dyeing cycle.

Samples of PillouT fiber and yarn dyeing diagrams are shown as below.

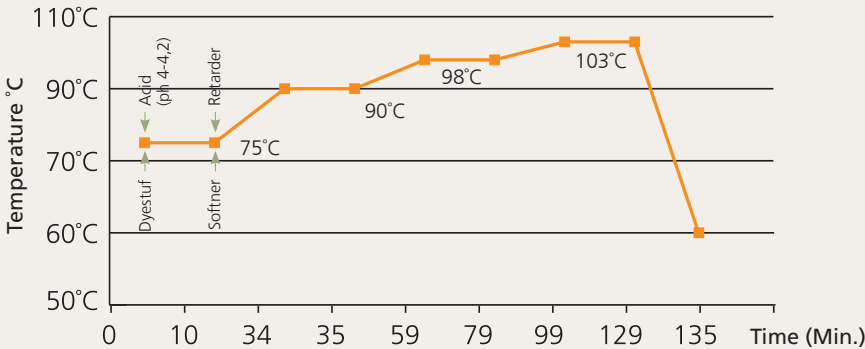
PillouT Fiber Dyeing Diagram



In order to dye dark colors, in the dyeing diagram:

- The period of time, at maximum temperature, can be extended.
- The dyeing speed can be slowed down.

PillouT Yarn Dyeing Diagram



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