

AT200 was introduced in 2010 to the target filtration market. Early 2011, Aksa developed AT203 trilobal homopolymer fiber to increase the effectiveness of filtration.

AT200 and AT203 homopolymer fiber was approved by a large electricity producer in the southern hemisphere. Presently, bags made out of AT200 and AT203 are used in their coal operated power plants.

Aksa has allocated a special polymer and fiber making unit for homopolymer fiber. Fiber inventory is warehoused and available for immediate delivery to our customers.



Aksa Akrilik Kimya San. A.Ş.

Head Office: Miralay Şefik Bey Sok. No: 15 Akhan 34437 Gümüşsuyu - İstanbul / TÜRKİYE
T: +90(212) 251 45 00 • **F:** +90(212) 249 35 99
pazarlama@aksa.com

Plant: Denizçalı Köyü, Karamürsel Yolu P.K. 115, 13. Km. Yalova / TÜRKİYE
T: +90(226) 353 25 45 • **F:** +90(226) 353 33 07

www.aksa.com

HOMOPOLYMER ACRYLIC FIBER
“The Core Of Filtration”





Aksa is the pioneer in Turkish textile industry in introducing the acrylic fiber, and started up production in its Yalova plant in 1968 with a capacity of 5,000 tons per year. At the end of 45 years, Aksa is the world's largest producer of acrylic fiber with 308,000 tons per year capacity and more than 14 % share of the worldwide market. Today, Aksa serves its reliable services to industries more than 50 countries spread over 5 continents. Aiming to bolster its leading position, Aksa started to provide its own energy consumption by recently opened power plant.

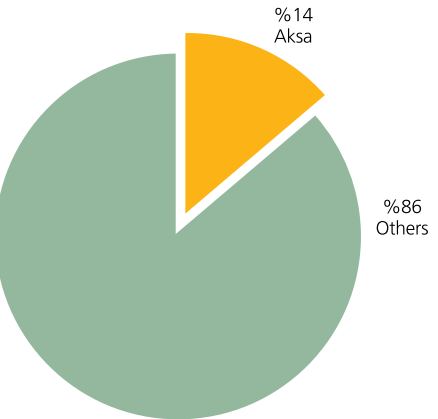
Since its debut of production in 1971, Aksa has produced more than 4 million tons of acrylic fiber sustaining superior quality. This experience and the unreserved dedication to customer satisfaction culminate in complete compliance with ISO 9001:2008 standards.

Aksa's continuous evolution has let it become a major player in the world markets. More than half of Aksa's production is consigned to many competitive markets either through direct exports as tow or by conversion into acrylic fiber derivatives such as top, bump, and staple fiber in both raw white and dyed forms.

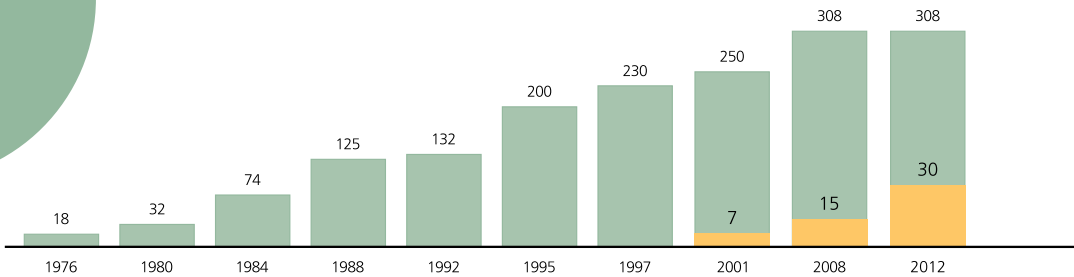
Having a strong emphasis on research and innovation, Aksa increases the number of new and special products in its range every year. As it expands the share of special fibers in its product portfolio, Aksa concentrates on new areas of business with a particular focus on technical fibers and carbon fiber production. Starting with only outdoor fiber production in 2001 with 7000 tons/year capacity, it has been reached to 30.000 tons/year capacity by adding 3 technical fibers flock tow, filament yarn and homopolymer fiber. The most recently added technical fiber is the AT200 homopolymer acrylic fiber for the hot gas filtration and other technical end uses.

Aksa always has remained sensitive and conscious of its responsibility to ecology and environment since its foundation. The acquisition of ISO 14001:2005 certification in 1997 increased the environmental awareness and this commitment stimulates Aksa to never stop making investments in this area. Aksa is currently employing total quality philosophy in its management, and is profoundly committed to enhancing the quality of work force as well as effectively motivating over 860 employees.

World Acrylic Fiber Output

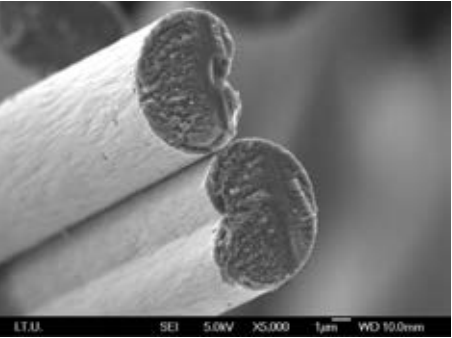


Aksa Production Capacity (1000 tons)
Aksa Technical Fiber Production Capacity (1000 tons)



HOMOPOLYMER ACRYLIC FIBER, AT200

AT200 is a high strength kidney shaped fiber developed for technical application in filtration media of power generation, cement, limestone industries. Due to chemical composition of AT200 homopolymer fiber, it has excellent chemical and mechanical resistance at very high temperature for long time usage.

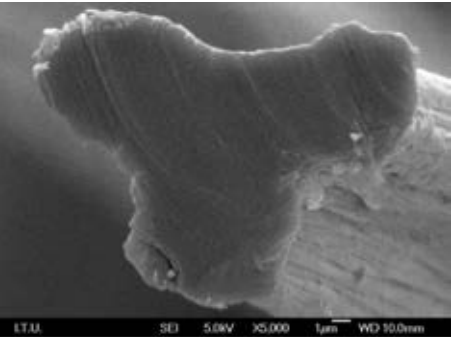


Physical Properties of AT200

	Fiber Count (dtex)			
	0.9	1.7	2.2	8.2
Staple fiber length, mm	40	50	60	80
Fiber Tenacity, cN/tex	50-60	50-60	50-60	35-45
Fiber Elongation, %	14-20	14-20	14-20	12-18
Density, g/cm³	1,18	1,18	1,18	1,18
Finish content, %	0,4-0,6	0,4-0,6	0,4-0,6	0,4-0,6
Hot air shrinkage, % 180°C 5 min	0	0	0	0

TRILOBAL HOMOPOLYMER ACRYLIC FIBER, AT203

AT203 is a high strength trilobal cross sectioned fiber. It was developed by Aksa for filtration media of power generation. This innovative fiber improves the effectiveness of filtration due to its increased surface area.



Physical Properties of AT203

	Fiber Count (dtex)	
	1.7	2.2
Staple fiber length, mm	50	60
Fiber Tenacity, cN/tex	45-55	45-55
Fiber Elongation, %	14-20	14-20
Density, g/cm³	1,18	1,18
Finish content, %	0,4-0,6	0,4-0,6
Hot air shrinkage, % 180°C 5 min	0	0

- AT200 & AT203's high tensile strength ensures enhanced durability and extends the life of the material.
- AT200 & AT203's compact molecular structure is a fundamental factor in differentiating the quality of the product.
- AT200 & AT203 reduce the weight of the filter material due to its low density which achieves cost advantages
- AT200 & AT203's are processed in an autoclave for annealing in order to remove the residual shrinkage on the fiber.
- AT200 & AT203 fibers are both highly resistant to degradation by
 - acids,
 - alkalis,
 - hydrolysis.
- AT200 & AT203 fibers retain 90% of its original strength after a treatment with 30% sulfuric acid at 75°C for 15 hrs.
- AT200 & AT203 have great durability at elevated temperatures due to their high molecular weight and compact molecular structure. After being kept at 140°C for 800 hours they will preserve 70% of their initial strength.
- AT200 & AT203 fibers are both ready-to-go for any textile processing equipment as well as;
 - needle punched felts,
 - woven fabrics through high tenacity yarns,
 - filtration felts,
 - other technical applications.
- AT200 is used for yarn production which has a tenacity of 34-35 cN/tex for Nm24/2 and 20/2.
- AT200 & AT203 fibers are compatible for blending with other synthetic fibers.

Stress-Strain Properties

