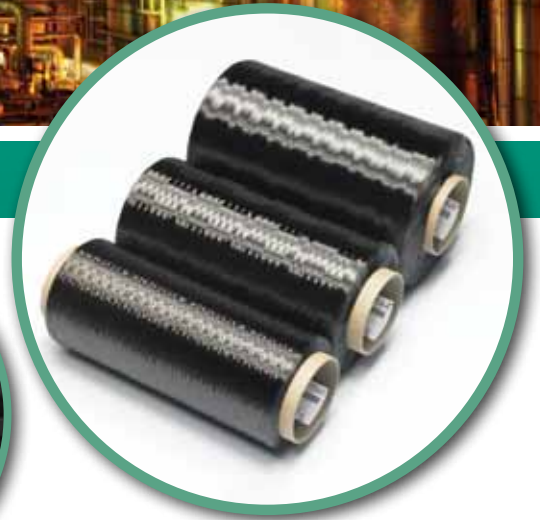




DOWAKSA



**HIGH QUALITY, RELIABLY SUPPLIED,
COMPETITIVELY PRICED
CARBON FIBER**

DowAksa Advanced Composites

Established in 2012, DowAksa is an international 50:50 joint venture between The Dow Chemical Company and Aksa Akrilik Kimya Sanayii A.Ş. Combining the strengths of both partners, the joint venture will manufacture and commercialize carbon fibers and derivatives with a specific focus on the energy, infrastructure and transportation markets.

As one of the largest chemistry and science-based companies, Dow, based in Midland, Michigan, offers world-class capabilities and global reach along with proven technologies in the area of composites as well as formulation and technical service capabilities.

Aksa, based in Yalova, Turkey, is the world's largest producer of acrylic fibers, a key raw material in the production of carbon fibers, and is one of the newest entrants in the manufacture of carbon fiber. Akxa has the infrastructure and capacity to expand the supply of carbon fiber precursor to meet the demand for high-quality, reliably supplied and competitively priced carbon fiber composites.

Together, Dow and Akxa will deliver a strong focus on bringing solutions to market that reduce overall costs, thereby enhancing economics and driving adoption in a broader array of markets.

Powerful Partnership: Dow and Akxa

Dow

Dow (NYSE: Dow) connects chemistry and innovation with the principles of sustainability to help address many of the world's most challenging problems such as the need for clean water, renewable energy generation and conservation, and increasing agricultural productivity. Dow's diversified industry-leading portfolio of specialty chemical, advanced materials, agrosiences and plastics businesses delivers a broad range of technology-based products and solutions to customers in approximately 160 countries and in high growth sectors such as electronics, water, energy, coatings and agriculture. In 2011, Dow had annual sales of \$60 billion and employed approximately 52,000 people worldwide. The Company's more than 5,000 products are manufactured at 197 sites in 36 countries across the globe.

Aksa

Aksa Akrilik Kimya Sanayii A.Ş. (Istanbul Stock Exchange: Akxa) is the world's largest producer of acrylic fiber with 308,000 tons per year capacity and 14 percent share of the worldwide market. Products include acrylic textile fibers and technical fibers. Akxa's mission is to be the choice for acrylic-based textiles and technical fibers, to work efficiently and in harmony with the environment, to be innovative and customer focused. Akxa has around 1,000 employees working at its production site in Yalova Turkey, and offices in Istanbul. Akxa's turnover was \$978 million in 2011. Akxa is a member of the Akkök Group of Companies, which is comprised of 17 companies operating in Turkey's chemical, energy, real estate and textile sectors. The Group has more than 3,200 employees.



Products

Rev. 04 / 2012

Continuous Carbon Fiber Properties

		Tensile Strength		Tensile Modulus		Strain (%)	Density		Yield Tex (g/1000m)
		Ksi	MPa	Msi	GPa		lbs/in ³	g/cm ³	
A-38	3K	552	3800	34.8	240	1.6	0.064	1.78	200
	6K								400
A-42	12K	610	4200	34.8	240	1.8	0.064	1.78	800
	24K								1600
A-49	12K	711	4900	34.8	240	2.0	0.065	1.79	800
	24K								1600
Test Method		ISO 10618		ISO 10618		ISO 10618	ISO 10119		ISO 1889

Standard sizing: Epoxy



Chopped Carbon Fiber Properties

Product Code	Application	Fiber Lengths, mm	Typical Bulk Density (For 6 mm cut lengths) (g/l)	Sizing Emulsion	Sizing content (%)
AC 0101	Thermoplastics - ABS, LCP, PA, PC, PBT, PET, POM, PPO	3, 6 or 12	600	Polyurethane based	1,5 - 3,0
AC 1101	Thermosets - Epoxy, Vinylester, Polyester Unsaturated Polyester, PC, PPS, Amide, SAN, ABS	3, 6 or 12	550	Epoxy and Phenoxy based	1,5 - 3,0
AC 2101	Thermoplastics (High Temperature) - PEEK, Amide, Imide	3, 6 or 12	550	Hydrocarbon based	1,5 - 3,0
AC 3101	Thermosets - Epoxy, Vinylester, Polyester Unsaturated Polyester, PC, PPS, Amide, SAN, ABS	3, 6 or 12	550	Phenoxy based	1,5 - 3,0
AC 4101	Thermoplastics - Special for PA and PBT	3, 6 or 12	500	Polyamide based	1,5 - 3,0



DOWAKSA



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