

# motorsport







### **FUTUREFIBRES**

Over the last 10 years Future Fibres has established itself as the world's leading composite rigging supplier. Pioneering the development of continuously wound PBO for standing rigging on racing yachts and being at the forefront of wheel tethers (SWEM) for Grand Prix and IRL racing cars.



**Future Fibres** has been instrumental in the evolution of FIA approved wheel tethers, in close cooperation with teams, circuits and governing bodies, from the original break strength tethers to the ever changing energy absorbing tethers. Future Fibres is the only company in the world that can provide a full range of wheel tethers to satisfy both the break strength and energy absorbing requirements of the FIA and IRL. In 2009 a new range of fully optimised tethers will be available to NASCAR



With over 65 trained staff at its purpose-built facilities in Valencia, Spain and Newport, R.I. Future Fibres is 100% focused on the design and manufacture of composite cables. Constant research into new materials and in-house testing means that we can achieve maximum performance for minimum size and weight, while ensuring that safety remains the top priority.



### energy absorbing RACE CAR safety tethers break surengin

Race Car safety tethers are divided into two groups

Energy absorbing tethers (EAT) and Break strength tethers (BST).

**EAT Tethers** are built to stretch thereby dissipating energy while failing at a controlled load. They are built to a constant diameter to ensure consistent performance along the complete length of the tether, while providing a lightweight and malleable solution.

**BST Tethers** are built to withstand a nominal predetermined load; these use the patented Future Fibres loop technology with no weak links enabling the smallest possible diameter and therefore the lightest tether.

The tether type is usually dictated by the Governing body of each circuit. The present FIA regulations controlling F1 and F3 circuits among others stipulate that the tethers must be energy absorbing (EAT) tethers. Indy Cars and NASCAR use predominately break strength cables (BST).

**FF Motorsport** has experience of supplying to a full range of clients from small one-off teams to large chassis manufacturers as well as whole circuits. Likewise it is able to deal with both one-off custom requirements as well as providing an extensive range of circuit specific cables.



## ff motorsport

All our tethers are homologated following rigid testing at the FIA approved Transport Research Laboratory (TRL) in Berkshire. England, and by the SFI in San Diego, California.

Bst	Diameter (mm)	Weight (g)
50kn	6mm	48
70kn	7mm	60
100kn	9mm	91

Eat	Diameter (mm)	Weight (g)
2kj	9.25	48
3kj	9.5	52
4kj	12	83
6kj	13.5	109

Weight given is for a 600mm test cable

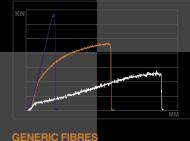




The FF Motorsport design team in conjunction with chassis and gearbox manufacturers, is constantly updating. improving and designing new ways of interfacing the cables and improving their design. We have an extensive R&D department with several in-house test facilities specifically designed for the development of wheel tethers.

We use our build technology to maximise the inherent material properties of strength bearing fibres to produce the lightest and strongest tethers on the market.

As a direct result, we have experience in a wide range of:



PBO Carbon

Aramids: Keylar, Technora, Twaron Performance enhancing fibres, Nomex, Spectra, Nylon

### **CUSTOM TERMINATIONS**

'Future Fibres Soft Loop' as an alternative to metal spool type fittings

Metallic Fittings (Spools or Thimbles); Titanium,

Aluminium, Stainless Steel

Delrins, Nylons, Peek and Plastics

Crumple Zones

### **COVERS**

Heat protection Flexibility Custom braids Moulded sections Chafe resistance Strength Aero sections





and are well placed to provide expert advice in searching for the best tether to suit your specific requirements.









Av. Constitución, 3 , PI Torrubero, 46136 Museros, Valencia, Spain Tel: +34 961 452 105 Fax: +34 961 412 117

4 Howland Ave Middletown, Rhode Island 02842 USA **Tel** +1 (401) 396-2636 www.ffmotorsport.com

www.futurefibres.com info@futurefibres.com