



## 1. Product

The fibre is produced in our Abidos plant by the treatment of an acrylic fibre precursor, with pyrolysis, surface treatment and sizing processes.

Each bobbin of TORAYCA carbon fibre is protected against dust and packed in container to prevent damage during transportation.

## 2. Requirements

The fibre shall comply with the requirements given in the table (see overleaf) for a period of 24 months after production if stored under normal conditions such as an absence of condensation below 35°C. The fibre shall be used after a minimum of 48 hours, conditioned between 20°C and 35°C in 40% to 80% relative humidity. The fibre shall be uniform in appearance and substantially free from yarn breakage and foreign bodies.

## 3. Quality control

Fibre properties: All fibre properties are established on a single production lot basis

### 1) Definition of lot ( TY-020B )

A “lot” of fibre is carbonized from one creel load of precursor and carbonized on the same equipment under one set of processing conditions.

### 2) Sampling plan

The sampling plan for inspection is based on ISO-3951 “Sampling Procedures and Tables for Inspection by Variables for percent Defective”.

### 3) Testing methods

Testing methods are based on the following TORAYCA standards:

Tensile properties	TY-030B-01 (current version)
Density	TY-030B-02 (current version)
Yield	TY-030B-03 (current version)
Sizing amount	TY-030B-05 (current version)
Twist	TY-030B-06 (current version)

### 4) Presentation of properties

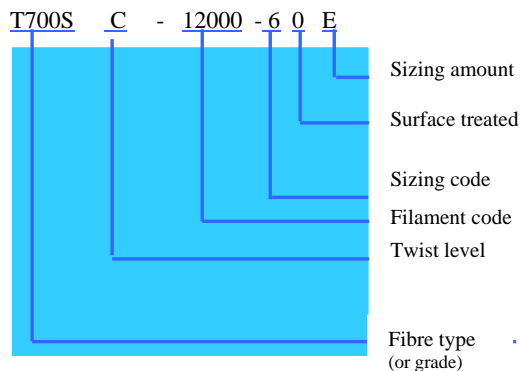
Lot properties are obtained by taking the average values of each bobbin in the sampling plan. Tensile properties of each bobbin are the mean values of measurements taken on five specimens.

## 4. Certification

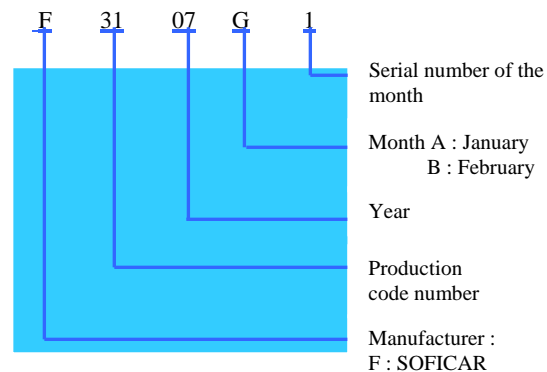
Each lot of fibre is certified by the manufacturer as fulfilling the requirements of this specification. A conformity certificate is sent to the customer with each delivery.

## 5. Marking

1) The fibre designation contains the following information:



2) The lot number consists of letters and numbers containing the following information:  
For example:



Measured Characteristics	Unit	min	max
Tensile strength	MPa	4510	-
Young modulus	GPa	221	240
Elongation at break	%	1.9	-
Mass per unit of length	g/1000m	776	824
Density	g/cm <sup>3</sup>	1.76	1.84
Sizing amount	%	0.05	0.5

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