

Introduction of DELTA

1. Overview about Toray Group and DELTA

7th October 2021
Delta-Tech/Delta-Preg S.p.A.

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Extensive Competence in Material Technologies



Toray offers material technology for a broad range of applications and comprises five business segments:



Fibers & Textiles

All three major synthetic fiber groups



Performance Chemicals

Plastics and chemicals for a wide range of applications



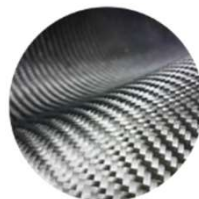
Life Science

Medical products, pharmaceuticals and bio-tool products



Environment & Engineering

Construction and energy materials, engineering equipment and water treatment membranes



Carbon Fiber Composite Materials

World's largest manufacturer of PAN-based carbon fibers

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Overview of Toray Carbon Fiber Materials Business

General

Start of commercial Production : **1971**

Products Brand : **Torayca®**

Subsidiaries (Consolidated) : **9 Companies**
(Japan 1, Overseas 8)

Employees : **6,740** (as of Mar 31, 2020)
Toray HQ 1,269 (19%)
Subsidiaries 5,471 (81%)



Main Production Sites / Capacities

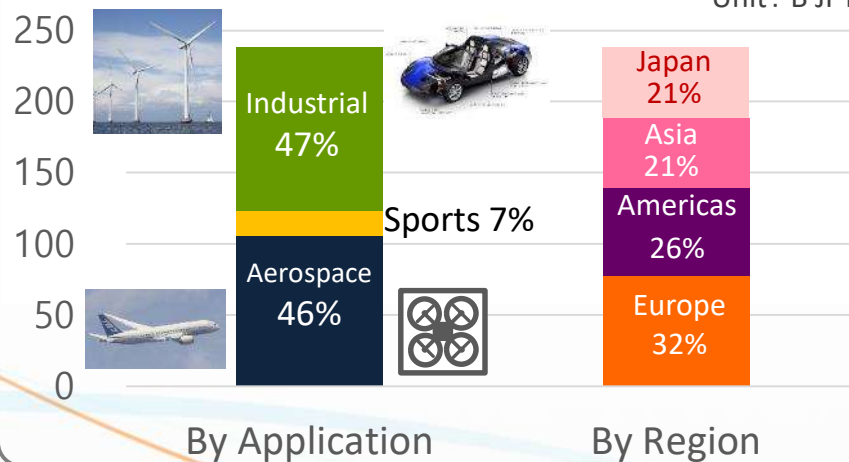
Unit: ton/year

	Regular Tow Carbon Fiber	Large Tow Carbon Fiber
Toray	9,300	-
CMA	9,900	-
CFE	5,200	-
TAK	4,700	-
ZOLTEK	-	25,400
Others	-	-
Total	29,100	25,400

Sales Breakdown

FY2019 Sales amount

Unit: B JPY

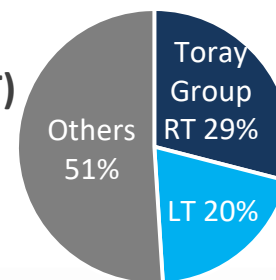
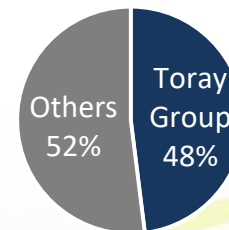


Market Share

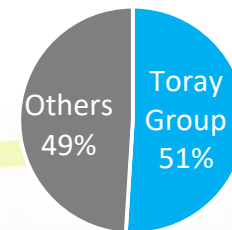
(As of 2018)

Whole Market of Carbon Fiber

Regular Tow (RT) Carbon Fiber



Large Tow (LT) Carbon Fiber



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The Materials of the Future: Carbon Fiber Composite Materials



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Supply chain of Toray group: Carbon Fiber Composite Materials



Toray Group
company:



'TORAY'
Toray Carbon Fibers Europe



TORAYCA



ZOLTEK
Toray Group



-C-I-T-
composite materials Italy



DELTAtech™



 **DELTA**preg



'TORAY'
Toray Advanced Composites



eacc
euro advanced carbon fiber composites



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DELTA became a member of Toray Group since September 30, 2015.

Delta-Tech S.p.A.

- Foundation : 1999
- Location : Altopascio(LU), Tuscany
- Shareholder : **'TORAY'** 100%
- Function : Head Office
Resin Mixture Production
R&D, Labo



100%
Subsidiary

Delta-Preg S.p.A.

- Foundation : 2001
- Location : Sant'Egidio(TE), Abruzzo
- Shareholder : Delta-Tech 100%
- Function : Prepreg Production
Sales & Marketing



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Structural Systems

- DT120/DT124
- DT150
- DT190
- DT195N
- DT197N



Out of Autocl.

- BT080



Surface Film

- FS011



Cosmetic Systems

- DT121-Series
- DT151HE

Heat Resistent Systems

- DT01CN/12CN
- DT350CN

Adhesive Films

- FA010

Press Moulding Systems

- DT121R
- DT130 -Series
- DT140RS
- DT151RE
- FS011



Flame Retardant Systems

- FR147FA
- FR160, FR161



Epoxy Tooling Systems

- TR23/23S/25
- TR33/33S
- TR43
- EX012(Surface film)



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Certification



➤ ISO 9001



➤ ISO 14001



➤ ISO 45001



➤ EN9100 : Planning for certification in the end of 2021.

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Activity for Sustainability (DELTA)



◆ Solar Panel System at DELTA-Preg

- DELTA installed the solar panel system on the top of the plant in 2009.
- Total energy made by solar panel in 2020 was 95000kWh, which cover 28% of energy consumption of this building for manufacturing prepreg. (4% of total energy consumption in DELTA-Preg)



◆ 100% Renewable Energy at DELTA-Preg / DELTA-Tech

- Started to receive 100% renewable energy from electric supplier (ENEL Energia) in 2020.
- All electric energy in DELTA is covered by renewable energy from electric supplier or solar panel.



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Thank you for your attention

Four times lighter than steel but ten times stronger,
Toray's carbon fiber gives wings to the 787 Dreamliner.



MATERIALS CAN CHANGE OUR LIVES.

'TORAY'

Innovation by Chemistry

www.toray.com

The logo for DELTAtech, featuring the word 'DELTA' in a stylized font with a triangle above the 'A', followed by 'tech' in a smaller, lowercase font. The logo is white and is set against a red rectangular background.

"We'll change your idea of what's possible"

Grazie per la vostra attenzione