



6061-F | METAL+
FORGING

FROM CANADA TORONTO

FORGED x CARBON FIBER

Carbon fiber content is above 75%

Features of carbon fiber barrel

1. High temperatures generated at top speed >> faster heat dissipation
2. 40% lighter than aluminum wheels >> lightweight enhances driving range
3. Braking distance reduced by 3.6% (approx. 1.6 meters) >> more safer driving
4. Higher strength than aluminum wheels >> improved shock absorption
5. Two-piece design with customizable disk, adding premium value → stylish and unique

Carbon Fiber Wheel Technology

German Patents

- 5 patents for carbon fiber wheel production
- Manufacturer holds over 60 patents in carbon fiber composite materials

Manufacturing Technology

- Modular preforming system – enabling mass production
- Intelligent control high-pressure reactive injection technology – improving yield rate

Heat Dissipation Concept

- Utilizing unique fibers (metalloid characteristics) – passed international high-temperature resistance tests

Vehicle Safety Testing Certified

- Certified by German TÜV testing authority
- Certified by Japanese VIA testing authority

Structural Technology

- Utilization of advanced preforming process – passed impact tests
- Multi-material integration – achieving stress dispersion
- Multi-layer fiber combined with NCF materials – ensuring fatigue resistance

Design Technology

- Application of material mechanics – optimal lightweight wheel structure
- Precision FEA testing on wheel and joint area – verifying structural integrity

TEST RESULTS

<i>Passed OEM standard biaxial test (15,000 km)</i>	20"	21"
Compression test (8Bars)/Strength inspection/Preheat damage test	✓	✓
75% bending fatigue test: 200,000 cycles	✓	✓
50% bending fatigue test: 1,800,000 cycles	✓	✓
Radial fatigue test: 300,000 cycles	✓	✓
13° impact test	✓	✓
Biaxial test (7,500km)	✓	✓

** TÜV guidelines for the testing and inspection of plastic wheels for passenger cars and motorcycles were followed.*



German Advanced High-Tech Manufacturing Technology

MADE IN TAIWAN



HP-RTM (The only ultra-high-pressure injection machine in Taiwan)

- Rapid infusion
- Enhanced impregnation efficiency
- Reduced molding time
- High-quality production

C-RTM (The only three-component mixing injection machine in Taiwan)

- Safe and fast control of resin injection volume
- Modularized injection functionality

Preforming System

- Modularized preforming system
- Flexible adjustment for width and diameter requirements

Manufacturing Technology (Core competence for CFRP RIM)

碳纖維材料

CF Material

預成型

Preforming

灌注

Injecting

加工

Machining

塗層

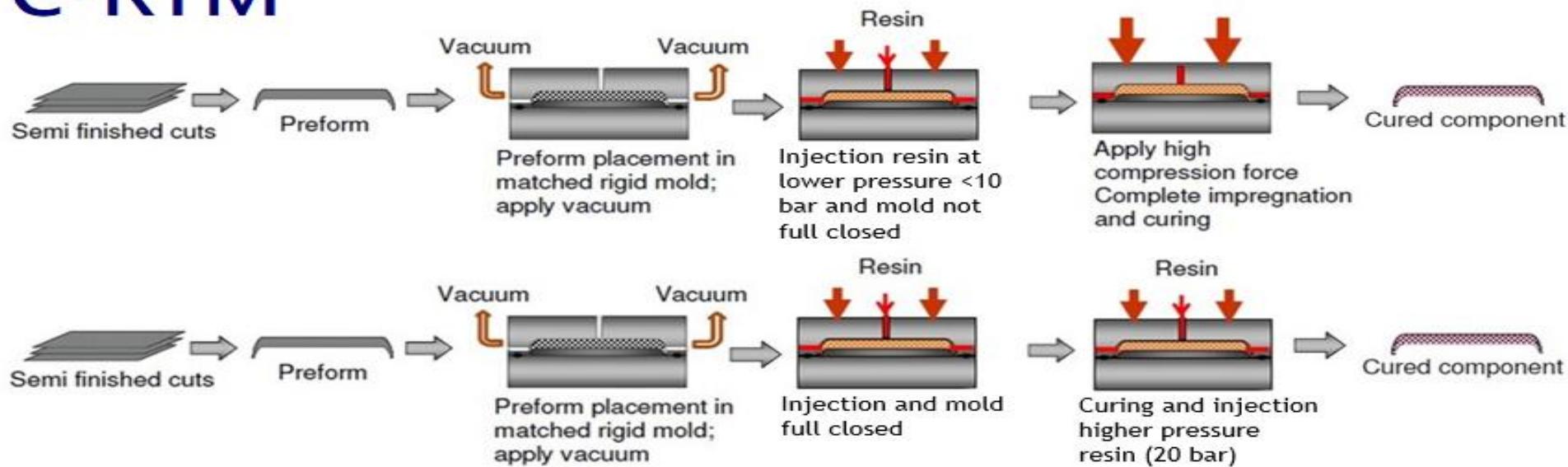
Coating

C-RTM

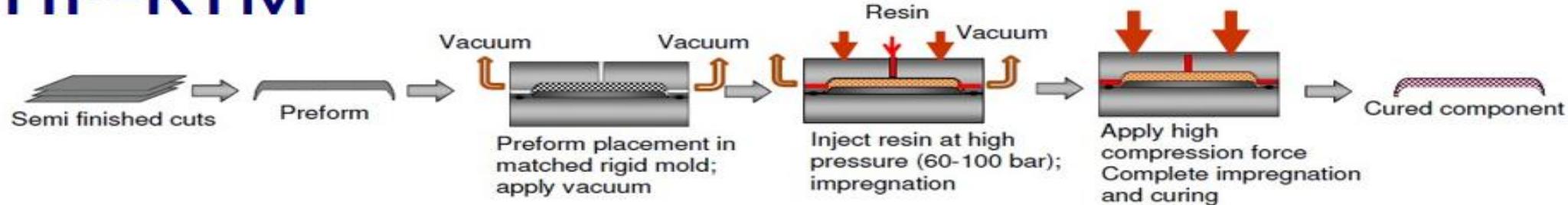
HP-CTM

Manufacturing Technology – C-RTM & HP-RTM

C-RTM



HP-RTM



CFRP wheel specifications

SIZE	Weight	Mass Production Timeline
19x8.5J	~4.5kg	Available now
19x9.5J	~4.7kg	Available now
20x9.0J	~4.3kg	Available now
20x10.5J	~4.8kg	Q4 2025
20x11.0J	~5.2kg	Q4 2025
21x9.0J	~4.9kg	Available now
21x10.5J	~5.0kg	Available now
21x12J	~5.5kg	Available now

>>More sizes under development

Customized Carbon Fiber Wheels

Customization Process :

2D/3D Custom Design

CAE Simulations

6061-T6 Forged Disk Production Launched

Carbon Fiber Barrel Production Launched

Assembly of Forged Disk & Carbon Fiber Barrel

Final Quality Inspection after Assembly

Production Lead Time: 45~60 Days

Unique Personalized Disk Design:

Changeable center disk and options for hidden/exposed bolts for assembly

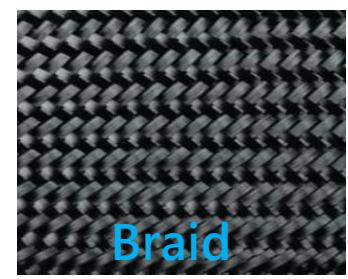
Customizable concavity, width, chamfer, and other design requirements

Carbon Fiber Different Pattern Options:

SMC Forged / Braid / Twill Weave



SMC Forged



Braid



Twill Weave