

December 15, 2022
For immediate release

Contact:
Corporate Planning Department
Corporate Communications Section
Phone: 81-3-5400-4531
Fax: 81-3-5400-4570

Yokohama Rubber to supply racing tires with a sustainable material content ratio of 33% for 2023 SUPER FORMULA races

Tokyo—The Yokohama Rubber Co., Ltd., announced today that it will supply ADVAN racing tires with a sustainable material content as the control tire for the Japanese SUPER FORMULA Championship (hereafter, SUPER FORMULA) from the 2023 season. The company has completed development of tires for use in dry conditions and will continue developing tires for wet conditions with the aim of supplying them from 2023.

The dry condition tires being supplied by Yokohama Rubber use natural rubber and various naturally derived compounding agents including oil produced from oil palm nuts and orange peels, as well as recycled iron, rubber recycled from waste tires, and synthetic rubber produced using the mass balance method*. As a result, sustainable materials account for about 33% of all materials used in the tires, which have demonstrated performance equivalent to that of the standard tires used in SUPER FORMULA 2022 races.

*A method that allows you to label a commercial product as a biomass-derived product based on the volume of biomass-derived raw materials used during the process of turning raw materials into final products and the distribution process. Commercial products labeled as biomass-derived raw products therefore are regarded as fully biomass-derived regardless of their actual volume of biomass-derived materials.

Racing tires made from sustainable materials will be supplied in support of the SUPER FORMULA NEXT 50 (SF NEXT 50) project announced in October 2021 by Japan Race Promotion Inc., which runs the SUPER FORMULA series. The SF NEXT 50 project is being promoted with the cooperation of various companies that share the common goal of creating a sustainable motorsports industry by responding to changes in the environment surrounding the automobile and motorsports industries, including the promotion of SDGs and carbon neutrality.

Aiming to develop racing tires that include sustainable materials without compromising driving performance, Yokohama Rubber tested its tires as part of the trial runs for next-generation formula cars that were held before and after each Super Formula race during the 2022 season. The company will continue its efforts to develop tires with higher sustainable material content in 2023 and coming years.

Under Yokohama Rubber's three-year (2021–2023) medium-term management plan YX2023, the consumer tire business aims to maximize the sales ratios of high-value-added YOKOHAMA tires, namely the global flagship ADVAN brand, the GEOLANDAR brand of tires for SUVs and pickup trucks, and various winter tires. The plan also positions participation in motorsports activities as crucial to Yokohama Rubber's development of advanced tire technologies and strengthening of its

ADVAN and GEOLANDAR brands. The company's development of high-performance and top-quality tires for new cars and the replacement market benefits from the technologies accumulated through its participation in a wide variety of motorsports events in Japan and around the globe, from top-category races to grassroots races. Yokohama Rubber also is promoting sustainability initiatives based on the concept of "Caring for the Future." The company believes that conducting its business activities aligned with these sustainability initiatives will help resolve social issues and lead to the continued increase of its corporate value. One goal of Yokohama Rubber's sustainability initiatives is to contribute to the realization of a circular economy. Toward that end, Yokohama Rubber aims to increase the ratio of renewable and recyclable materials used by the company to more than 30% of total materials used by 2030 and then raise that ratio to 100% in 2050.



ADVAN racing tires (dry use) to be supplied to SUPER FORMULA races from 2023



SUPER FORMULA 2023 will feature new formula cars

■ Progress in development of ADVAN racing tires using sustainable materials during 2022

1st test: April 6–7 (Fuji Speedway)

Tests runs were made by cars fitted with four different ratios of sustainable materials used in the compounds and in the casings that form the tire's construction. The results showed that tires with higher ratios of sustainable materials performed just as well as the standard tires being used in the 2022 season.



Development cars White Tiger (Honda) and Red Tiger (Toyota)

2nd test: April 25–26 (Suzuka Circuit)

The 2nd test compared tires with eight different sustainable material ratios with the standard racing tires used in the 2022 season. Long runs on the demanding Suzuka Circuit course and its technical high-speed corners that place a particularly high load on tires confirmed the tires' durability and suitability for use on next-generation formula cars featuring new aerodynamics.



Development car with lower downforce than SF19 cars

3rd test: May 18–19 (Autopolis)

During the 3rd test, tires made with combinations of casings and compounds that performed well in previous tests were tested on the Autopolis course with different features that presented new challenges. In addition to the two compounds used in tires tested to date, 3rd test evaluated a new reconfigured third compound. In addition to completing the entire planned test menu and obtaining a large amount of data, the 3rd test also saw the tires tested over a long distance similar to the length of a SUPER FORMULA race.



Test driver Koudai Tsukakoshi

4th test: June 20–21 (Sportsland SUGO)

The 4th test was carried out on a narrowed down group of previously tested casing/compound combinations to get a sense of how different they feel on different circuits. Steadily narrowing down the group of casing/compound combinations being evaluated enabled testing to focus on the tires' performance on long runs, which made possible evaluations of wear when the tires are subjected to high-temperature conditions.



Long run test scene

5th test: July 18–19 (Fuji Speedway)

Rain on the second day of the 5th test provided the first opportunity to test the tires on a wet track. Morning tests were conducted during light rain on a damp track, and heavier rain in the afternoon made it possible to compare the tires' performance in light rain with their performance in wetter conditions caused by heavier rainfall. Long-running tests also were conducted, and the 5th test generated valuable wet condition data.



Test run on wet track

6th test: October 26–27 (Suzuka Circuit)

In preparation for the carbon neutral standards to be introduced in the SUPER FORMULA 2023 season, the 6th test was conducted on tires with casing and compound specifications narrowed down based on results to date on fully updated new SF23 cars. Test driver comments about which tires performed as well as the standard tires being used in 2022 races contributed to the final decision on the specs for new dry condition racing tires.



Test driver Hiroaki Ishiura (left) speaking to Yokohama Rubber tire development staff

7th test: November 21–22 (Mobility Resort Motegi)

On Day 1, testing was conducted on a track surface sprinkled with water to determine optimal specifications for wet condition tires. Test subjects included tires with three different specifications modified from the specs that had performed well in the rain at Fuji Speedway in July, and the results were compared with the performance of the standard tires being used in 2022 season races. Future testing will be conducted on a narrower range of specifications with the aim of developing wet tire specs for use in 2023. Day 2 testing focused on evaluating the performance of dry condition tires on which development had been advanced to include a higher ratio of sustainable raw materials.



Tested wet-condition tires