

SPORTMAX D211 GP-A





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SPORTMAX D211 GP-A

INTRODUCING THE DUNLOP 2010 SPORTMAX D211 GP-A

The new Dunlop Sportmax D211 GP-A is the latest iteration of the renowned Dunlop GP series that has carried road racers to the top of victory podiums the world over. Incorporated into the latest design are features that further hone the remarkable capability of this industry-leading design, all of which are made possible by an investment in new technology in Dunlop's manufacturing plant in Buffalo, New York.

In AMA road racing, Dunlop's unwavering commitment to the sport and domination of all national classes is unparalleled. With 24 Superbike championships—including the last 20 in a row—a clean sweep of all 22 Supersport titles, and more than 20 other AMA national championships, no other tire

company is in the same league as Dunlop. Last year, Dunlop became the spec tire for all AMA road racing classes. Race tire development feeds technology that keeps Dunlop's street tires at the cutting edge of performance. This has led to proprietary technology such as Multi-Tread (MT) first used in Dunlop's UK race tires and then throughout the Sportmax family, as well as Intuitive Response Profile (IRP) technology first introduced in the Sportmax Q2 and now also incorporated into the new Sportmax D211 GP-A.

This year at the Auto Club Speedway AMA National, Dunlop introduces the all-new Sportmax D211 GP-A, once again advancing the state of the art in DOT race tire technology. Used exclusively in the Daytona SportBike and SuperSport classes, the D211 GP-A ushers in a new era of race tire performance.



TOMMY AQUINO

OVERVIEW

The new Sportmax D211 GP-A follows the Sportmax D211 GP made in the UK, and utilizes the highly successful N-TEC as its foundation. N-TEC is a special hybrid construction that optimizes the benefits of compliant cut-breaker construction and stiffer jointless band (JLB) construction. Developed in the Dunlop UK race shop and on numerous racing circuits since 2003, the proven, state-of-the-art production technology responsible for the N-TEC is now online at the company's facility in Buffalo, New York, which also happens to be the only motorcycle tire manufacturing plant in the U.S. The next-gen N-TEC machine in Buffalo is the same basic design and technology as the UK-based machine, yet it is capable of building even more sizes and shapes of tires to meet current and future needs as motorcycle designs evolve.

CONSTRUCTION

Dunlop's N-TEC construction first appeared on early rear-tire prototypes late in the 2003 AMA pro season. Improvements continued throughout 2005 and 2006, and by the beginning of 2007 Dunlop was providing N-TEC tires to all of its

supported factory and satellite teams, as well as privateer riders. Success was pervasive and Dunlop dominated the podiums and collected all four titles that year. 2008 was another stellar season, and the company's record of achievement played a significant role in the selection of Dunlop as the sole tire supplier for AMA Pro Racing in 2009 and beyond.

The development of the first N-TEC—a rear design—was one of the most complex motorcycle projects ever undertaken by Dunlop. Producing a continuously wound, multi-compound tire that delivered consistently fast laps was a major undertaking. Radial construction provided excellent straight-line stability and eliminated circumferential tire growth, which allowed the tire to run cooler. The challenge was to engineer sidewall stiffness to produce consistent feedback or “feeling” for the rider as the bike transitioned from upright to full lean and back again.

Numerous carcass materials were evaluated both for riding feel and for their resistance to heat and stress. The engineers settled on a nylon carcass overlaid with two nylon breaker belts and a continuously wound JLB, aramid-fiber tread belt.



DANNY ESCLICK

The N-TEC front also utilized radial construction with two nylon carcass plies and two aramid cut-breaker carcass belts.

Complementing the construction of both tires was Dunlop's use of continuously wound hex-beads. Compared to round- or square-shaped beads, the N-TEC hex-bead improved feel and therefore predictability as the tire neared its cornering limit—a signature characteristic of Dunlop race tires.

For 2010, the Sportmax D211 GP-A employs a new stiffer nylon ply material. This stiffer material allows for steeper sidewalls and an entirely different tire profile. Dunlop's Intuitive Response Profile (IRP)—first introduced in the Sportmax Q2 in 2009—is applied to both the front and rear D211 GP-A tires. These steeper angles improve steering and linearity response in transitions, rider feedback, and overall stability. Another benefit of the steeper sidewalls is increased cornering performance. Cross-sectional analysis reveals the intent of this design: creation of a larger contact patch when cornering. To achieve this larger contact patch, Dunlop

engineers utilized three-dimensional computer modeling and FEA (finite element analysis) to scrutinize the many forces exerted on the Sportmax D211 GP-A at varying lean angles. Engineers used FEA to closely evaluate contact patch pressure distribution and the effect that different construction materials had on tire stiffness, especially at full lean angles. The D211 GP-A footprint peaks at around 50 degrees of lean and remains substantial up to 60 degrees, whereas the previous Sportmax GP-A footprint peaked at 40 degrees. The rear profile is visibly narrower and taller, while the front is slightly wider with a steeper tread edge drop.

In keeping with N-TEC design, the rear tire features Dunlop's Multi-Tread (MT) technology—multiple tread zones that are extruded simultaneously. Introduced in the Sportmax Q2 in 2009 and also incorporated into the Sportmax Roadsmart, MT technology combines a tough, cool-running compound placed in the center of the tread to provide enhanced straight-line stability and excellent traction under acceleration. On the left and right sides of the tire face, lateral-grip compounds developed specifically to enhance traction at moderate-to-maximum lean angles flank the longer-wearing center section.



Dunlop engineers selected these specifically tuned lateral-grip and center compounds in the D211 GP-A to yield maximum performance in racing conditions. To produce higher levels of grip, ultra-fine carbon black (UFCB) and a proprietary resin bond together the compounds' polymers. Because UFCB has small-diameter particles with a very dense structure, the resulting bond is very tight, providing the added benefits of low warm-up time and surprisingly good tread wear for a high-performance tire.

For the D211 GP-A rear tire, all-new, proprietary compounds are formulated from polymers and resins for the high-stiffness and high-grip treads to significantly improve grip, stability and durability, with better resistance to repeated heat cycles. For AMA Pro Racing competition, racers can select from a "soft" front or a "medium" front, and a soft or medium rear (both rear choices are Multi-Tread).

The tread pattern for the D211 GP-A traces its origins to Dunlop's cosecant-curve design, developed with the assistance of FEA (finite

element analysis). Carefully placed tread grooves continuously coincide with the forces running through the tread face of the tire during cornering. As the curving tread pattern travels across the tire to the shoulder area, the driving and braking forces remain consistent as cornering forces come into play. Both D211 GP-A tires feature the pattern proven on the UK-version of the D211 GP, first introduced in 2008.

No Dunlop tire enters the paddock or the marketplace without substantial testing, and the GP-A is no exception. Developed primarily by racers, including Danny Eslick, Martin Cardenas, Steve Rapp, Josh Herrin, Tommy Aquino, Shawn Higbee, Jamie Hacking, the Wood brothers, and former national road racers and current Dunlop test riders Rich Conicelli and Danny Roberts, the D211 GP-A began life at the 2009 AMA Pro Racing test at Auto Club Speedway, CA, and subsequently at top racing circuits across America. It

MARTIN CARDENAS

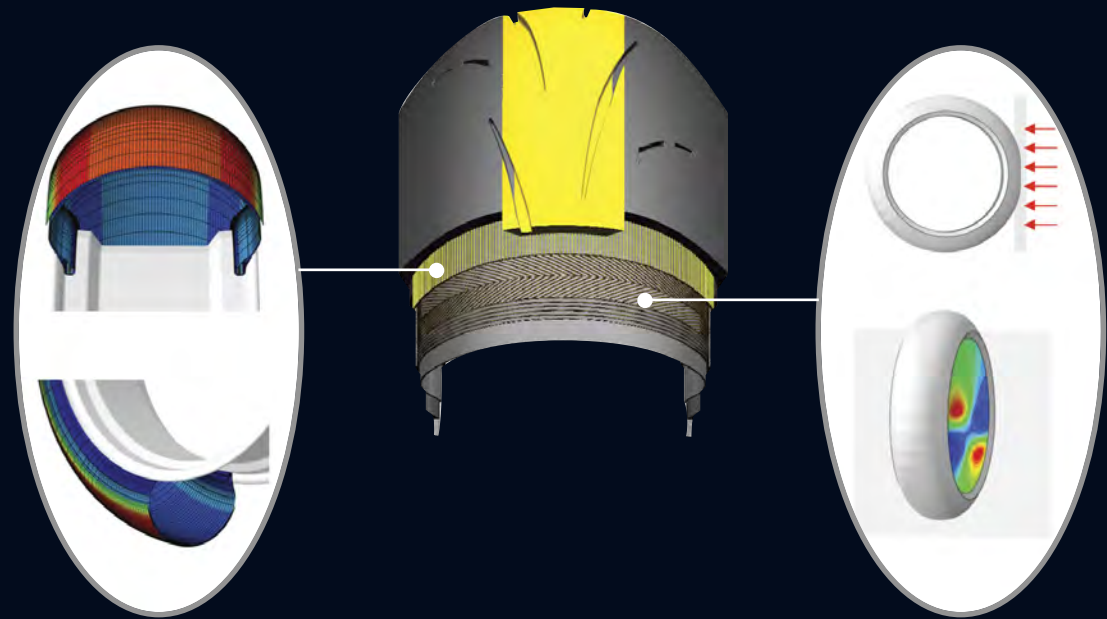
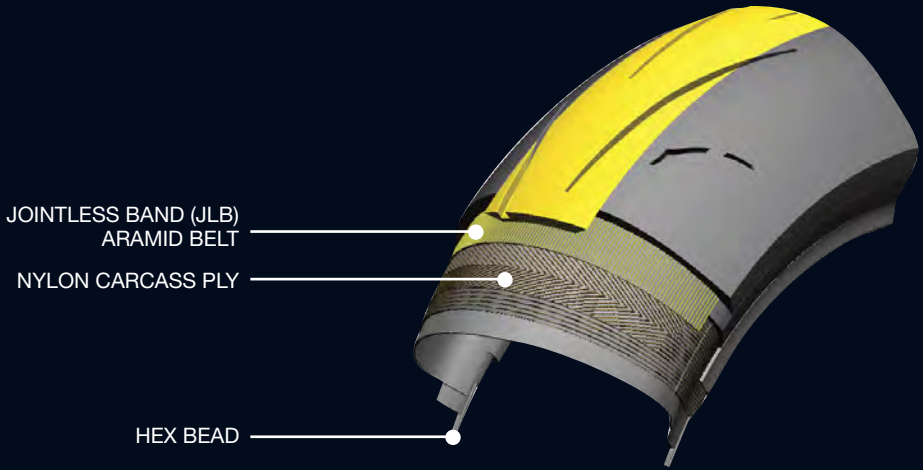
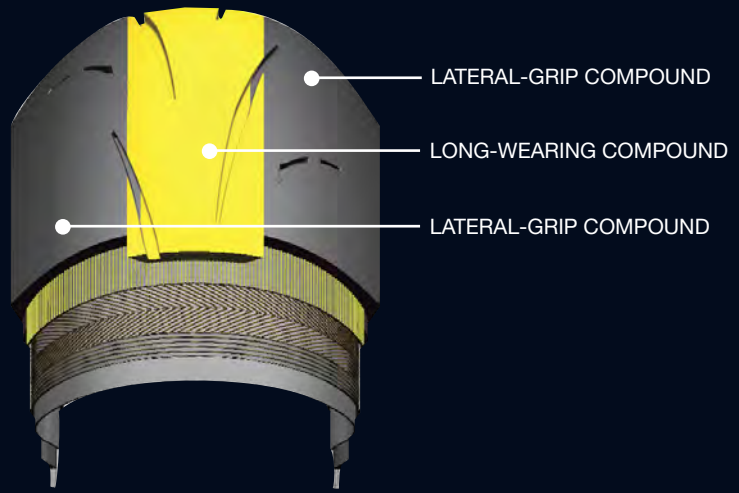


entered competition in prototype form at CCS (Championship Cup Series)-sanctioned races at Homestead, FL, and WERA (Western Eastern Roadracing Association)-sanctioned events at Roebing Road, GA, and Las Vegas International Motor Speedway. Additional testing and development took place at the Dunlop Proving Grounds in Huntsville, Alabama.

The Dunlop D211 GP-A launches into the 2010 AMA Pro Racing season battle-tested and proven. The Sportmax D211 GP-A complements Dunlop's family of Sportmax tires, and shares both IRP and MT technology with the Sportmax Q2—a tire designed for street and track use—and shares MT technology with the sport/touring oriented Sportmax Roadsmart.

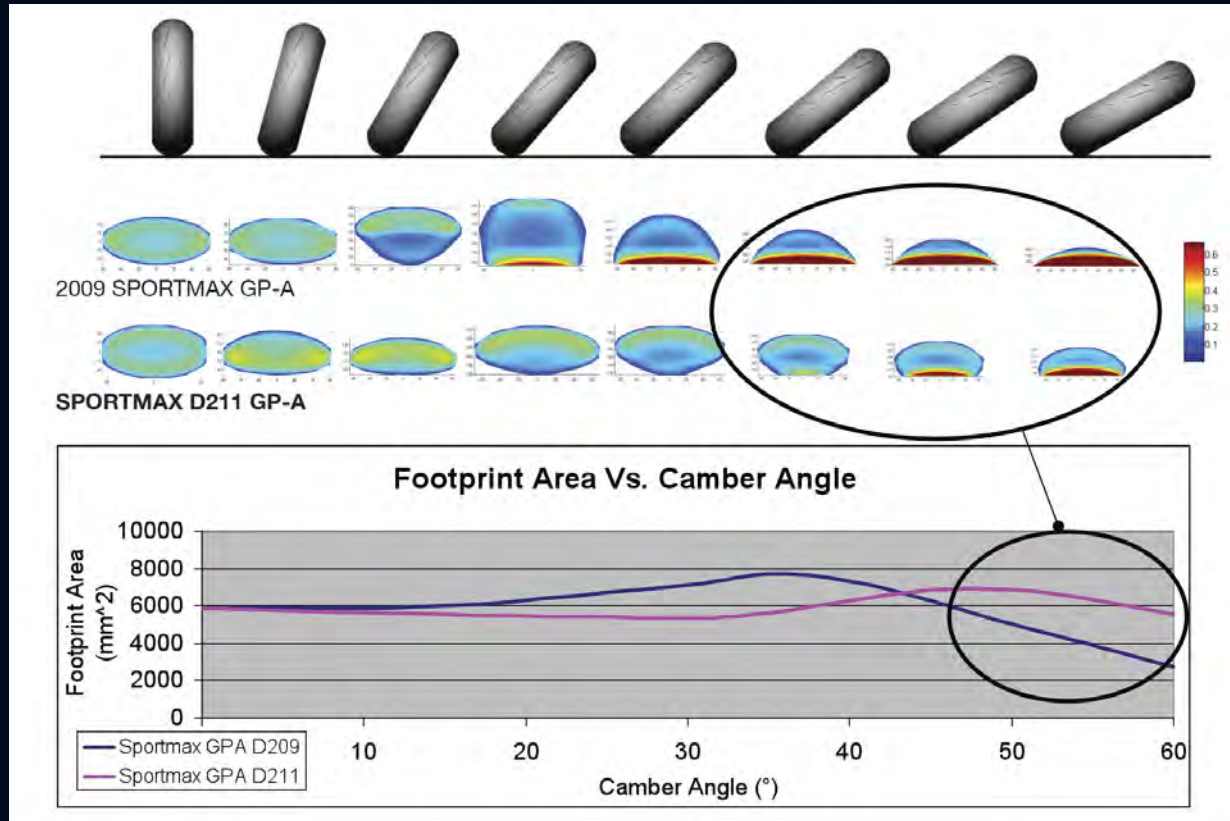
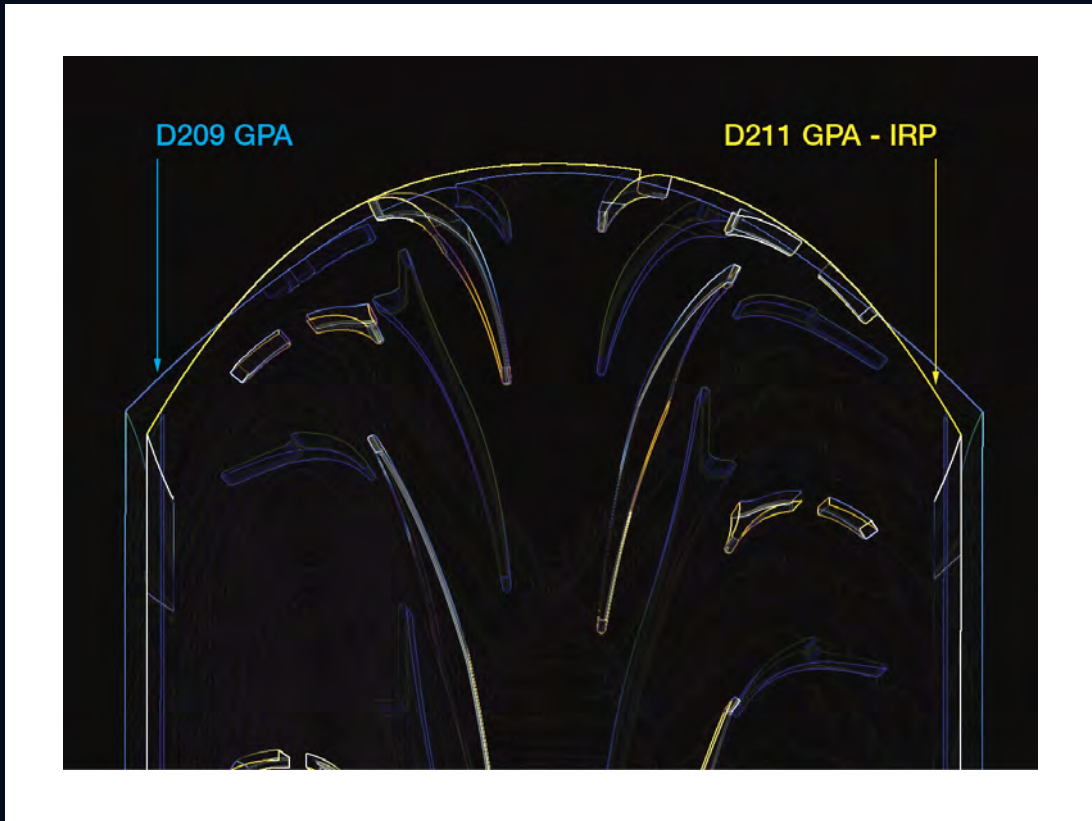


JOSH HERRIN



Aramid JLB layer helps promote consistent profile at elevated speeds

Nylon belts help promote stability under high loads at optimum inflation pressure



SPORTMAX FAMILY

Whatever your motorcycling passion may be, Dunlop is the name to know. Our Sportmax radial tires carry the highest reputation in every segment of the sport market, and because we offer a huge variety of high-performance options, it's easy to find the tire that fits your personal preferences.

	RACE	TRACK	STREET SPORT	SPORT TOURING
SPORTMAX D211 GP-A	■	■	■	
SPORTMAX Q2		■	■	■
SPORTMAX ROADSMART		■	■	■

SPORTMAX D211 GP-A



Developed and manufactured in the USA, this Supersport tire for racers and sportbike riders has been adopted as the Spec Tire for AMA racing.

- + MT Multi-Tread™ compounds give the Sportmax D211 GP-A rear tire enhanced grip, excellent drive out of corners and superior on-track handling.
- + Multi-Tread rear tires are available in soft/medium and medium/hard combinations to match track conditions.
- + Intuitive Response Profile (IRP) technology in the rear tire intuitively allows greater latitude in line choice while cornering and provides amazingly linear steering at various lean angles.
- + Jointless Band (JLB) rear-tire construction reduces tire growth for cooler running and enhanced grip.
- + 120/70ZR17 front and 190/55ZR17 rear size for club racing or track-day use on 1000cc through 600cc machines.



SPORTMAX Q2



This tire introduces a revolution in sportbike tires, setting new standards for grip, stability and steering feel. It all adds up to a superior street-going tire that's equally at home on the racetrack.

- + Intuitive Response Profile (IRP) technology in the rear tire intuitively allows greater latitude in line choice while cornering and provides amazingly linear steering at various lean angles.
- + Radical new profile puts down a bigger footprint at extreme lean angles while also allowing greater lean angles and higher corner speeds for enhanced grip and handling.
- + MT Multi-Tread rear tire incorporates a long-wearing compound in the center of the tire tread and a lateral-grip compound on each shoulder to enhance cornering performance and help provide class-leading grip and feel.
- + New carcass construction includes newly designed continuous hex beads that are lighter and stronger to enhance steering response and cornering stability.



SPORTMAX ROADSMART



The Roadsmart is an advanced sport-touring radial tire with superb wet-weather performance, mileage and sportbike handling.

- + Outstanding wet-weather performance with long-lasting mileage to match.
- + MT Multi-Tread rear tire incorporates a long-wearing compound in the center of the tire tread and a lateral-grip compound on each shoulder to enhance cornering performance and provide class-leading grip and feel.
- + Micro-sized carbon particles enhance dry grip under acceleration, and wet grip is enhanced with a special silica additive.
- + Coscant-curve tread design with deep and long grooves help evacuate water in both straight-line and cornering conditions.



SPORTMAX D211 GP-A IMAGE GUIDE



SportmaxD211_GP-A_Front_3/4



SportmaxD211_GP-A_Rear_3/4



SportmaxD211_GP-A_Front_Tread



SportmaxD211_GP-A_Rear_Tread



SportmaxD211_GP-A_Front_Profile



SportmaxD211_GP-A_Rear_Profile



SportmaxD211_GP-A_Rear_01



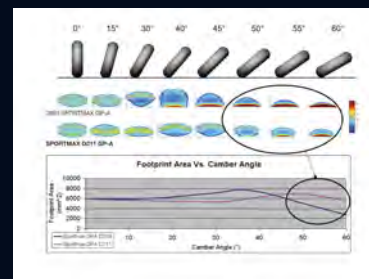
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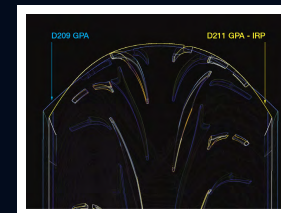
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SportmaxD211_GP-A_Illo_02



SportmaxD211_GP-A_Illo_03



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