

Test report

Référence : ARCSAS2102469 Ra01

Applicant	BRIDGESTONE		
Subject	Comparison of six motorcycle tyres		
Service / place of testing	Comportement véhicule - Sécurité active Centre d'essais de Mortefontaine Route du golf - F-60128 Mortefontaine		
Dates of testing	From 20 until 22 March 2021	Internal reference	ARCSAS2102469 Ra01
Technician	Bruno Destoop		
Summary / Conclusion	<p><u>Summary:</u></p> <p>UTAC CERAM had been asked by Bridgestone Europe NV/SA, French Department (BRIDGESTONE) to carry out a benchmark for motorcycle tyres, the aim being to evaluate and compare the performance and safety of the BRIDGESTONE tyre against its competitors:</p> <ul style="list-style-type: none"> • Michelin • Metzeler • Continental • Dunlop • Pirelli <p>The tests were conducted blind (the tested tyres were covered with heating blankets to prevent bias) and were held on the Bridgestone Italy track in Aprilia.</p> <p>The comparison was carried out using new tyres over five timed laps on the Dry Handling track and five timed laps on the Wet Handling track. Stopping distances were also tested over five dry and five wet braking sessions.</p> <p><u>Conclusion:</u></p> <p>The subjective and timed test on dry surface indicates that the performance of the Bridgestone Battlax Sport touring T32 over three laps is very close to the performance of the Dunlop Roadsmart 3, requiring only a little more warm-up time. Subjectively, it gives a good feeling whether in slow or fast corners, delivers precision and corner stability, and has braking power both in corners and straights.</p> <p>On a wet surface it is by far the best in performance. When it comes to feeling, it provides a very good level of confidence in all conditions: angled, high-speed cornering, accelerating in corners or on straights.</p>		

It also provides confidence while braking on corner entry, or in a straight line. When it comes to stopping distances, it is not notably the best performer despite what was subjectively felt (by the test rider). The procedure used for this test may explain this. In our goal to restrain the influence of the rider on the result, we conducted emergency brake tests, aiming to activate the ABS as soon as possible. Some brands are more in correspondence with the bike's suspension which makes sure the tyre stays in better contact with the ground, giving better steering with less deviation. Other brands, such as Bridgestone and Dunlop, generate a slight rebound upon applying the brakes, resulting in less accurate guidance and thus lengthening the braking distance.

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-				Initial report
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SUMMARY

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I- Objective

The objective of the test is to compare the Bridgestone Battlax Sport Touring T32 to the following five models:

- MICHELIN Road 5 2 CT +
- CONTINENTAL ContiRoadAttack 3
- PIRELLI Gran Turismo Angel GT 2
- METZELER Roadtec 01
- DUNLOP Roadsmart 3

The tracks from Bridgestone Italy formed the testing ground. Subjective testing and timed laps were performed on the dry handling and wet handling tracks. Braking tests were carried out on the wet braking and dry braking tracks.

- Test procedure

For lap times, the bike was equipped with the Solo 2 DL from AIM. For stopping distances, the VBOX from Racelogic was used.

A new set of tyres was fitted for all observations and time trials on wet and dry. A second set of new tyres was fitted for wet and dry brake tests. Before conducting the wet brake test, the tyres were broken in on the dry handling track.

The observations and timed laps in dry and wet conditions were carried out blind, meaning that the tyres were covered with heating blankets while stationary, ensuring that the tester did not know what brand was being tested. For each test, five laps were completed. The first two served to analyse the behaviour of the tyre when not broken in and to analyse the rise in temperature. The other three laps were used to examine performance.

For the brake test, five emergency brake style manoeuvres were carried out on dry and wet surface, three were retained.

The speed of the brake test was 100 km/h to 0.

When post-processing the collected data, intermediate distances between 80 km/h and 10 km/h were taken out to mitigate the effect of ABS on tyre performance.

II- Test vehicle and measuring system

Kawasaki Z 900



Timing system AIM solo 2 DL



Measuring system for stopping distances RACELOGIC VBOX



III- Test details and results

DRY HANDLING

Tests conducted on 20/03/2021

First, a few laps were completed on the dry handling track with the bike and its original tyre.

Each set of tyres was new at the start of the test. Break-in occurred during the five timed laps.

- MICHELIN Road 5 2 CT +

At very low speeds, the motorcycle seemed less manageable when compared to the original tyres.

During the first run-in lap, the tyres become more reassuring with a fast rise in temperature. On heavy braking the ABS is engaged quickly. As the front tyre warms up, grip increases, and the ABS is less invasive.

When braking in a straight line, the bike is stable. When entering a corner, the brakes must be released early enough for the bike to not lock-up when leaned over.

In tight corners, cornering is precise. Cornering lacks progressiveness, as the bike stabilises on a hard point and one has to put quite some force on the handlebars to turn the bike. In fast corners the bike is stable.

The bike is stable when leant over. When increasing lean angle, the feeling from the front tyre diminishes, small movements arise and a lack of proper levelling tends to make the trajectory wider.

When the throttle is opened on corner exit, traction control is triggered very early and remains active for a long time.

At high speed on the ring, the bike is very stable, with good steering lock and no wobbling.

- CONTINENTAL ContiRoadAttack 3

At very low speeds the bike feels heavy, as if it had an under inflated tyre.

When running in and warming up the tyres, the feeling is correct.

When braking in a straight line, the bike is stable. There was now feeling of the ABS activating during heavy braking and grip is good. As with the first tyre, the bike locks up when leant over, if you keep the front brake engaged in a corner.

In tight corners, steering into a corner feels less precise. Getting the bike in the right angle lacks progressiveness, as the bike stabilises on a hard point and it requires a lot of effort on the handlebars to make the bike turn.

When leant over, the stability is correct. When turning in, the front pushes wide and small bounces of the front wheel occur. The feeling of the front tyre is not very good. In fast corners the bike is stable but slightly heavy to handle.

When the throttle is picked up again on corner exit, the traction control often kicks in even at low accelerations.

Ring: At high speeds the bike is stable, with no shimmering or wobbling.

When riding on the connecting roads between the test tracks, small vibrations can be felt through the handlebars when riding over the tarmac joints.

- PIRELLI Gran Turismo Angel GT 2

With this tyre, the bike is easy to handle and manoeuvre at very low speeds.

Not a bad impression on the first laps when running in, the temperature rises quite fast, overall feeling is good

Upon braking in a straight, the grip of the front tyre is good, and the ABS does not intervene much. When braking hard, the rear is livelier, there is more wobble.

Steering into a corner is precise, making it easy to lean the bike over, allowing trail brake into the corner.

When leaned over, the bike feels livelier and it's easy to change direction.

The feeling up front is good but feels light. In fast corners the bike is less stable and feels too light at the front. There is a small discrepancy between the front and the rear on fast corner changes.

When getting back on the throttle, the grip from the rear is good and traction control is less intrusive. On heavy acceleration there is a small wobble.

Ring: the bike is stable. There is no shimmy or wobble, but the feeling is less sturdy compared to the first two tyres, feeling lighter at the front.

- BRIDGESTONE Battlax Sport Touring T32

The bike handles very well with this tyre, making it very easy to manoeuvre at very low speeds.

During the run-in I already felt confident. On the second lap when increasing the pace a few small impressions of instability were felt in tight left corners.

Good braking stability in a straight line. The ABS does not, or only slightly, intervene. The rear of the bike remains in line even when hard braking.

Steering into a corner feels precise, the bike is banked over easily, and cornering feels linear. When leaning over, the bike is stable and there is good feedback through the handlebars. Changing lean angle is easy and provides a good front tyre feeling. In fast corners the bike is stable and also when changing sides quickly, the front is stable.

When exiting a corner and re-engaging the throttle, the rear tyre stabilises very quickly. On heavy acceleration the grip is good with very little intervention from the traction control.

Ring: The bike is stable at high speeds. The handlebars feel firm with no wobbling.

- METZELER Roadtec 01

At low speeds the bike handles well, but imperfections of the road are felt a little bit more. During the break-in period the bike behaves well but the feeling is a little bit less than the third and fourth tyres.

During heavy braking the bike is stable, with a rear end that stays in line with little or no ABS intervention.

Steering into a corner is fairly easy but adding more lean angle requires a bigger effort on the handlebars. At maximum lean angle the bike is less stable, the front end does not feel well levelled and there are small front wheel bounces that diminish the feel.

When changing sides quickly, the tyres don't slide, but both front and rear do not exactly give the impression that they are levelled properly.

When re-engaging the throttle, traction control intervenes early and often. As laps go by the grip improves slightly.

Ring: Stable at high speed, no shivering or wobbling felt.

- DUNLOP Roadsmart 3

Very good handling at very low speed.

Good feeling during the break-in, grip is good and the temperature rises quickly.

The bike is stable when braking in a straight line. When braking hard, the rear end stays in line and the ABS does not intervene, or does so only slightly.

Steering into a corner is precise and linear, making it possible to lean in and keep the front brake slightly engaged.

When leaning over, the bike feels stable. Cornering is easy and the front tyre provides good feedback. When changing sides quickly, the bike is stable, indicating good balance between the front and rear tyre. The same is true in fast corners.

When going back on the throttle, the rear tyre gains grip quite quickly, but on heavy acceleration the traction control is engaged rather promptly and for a long time.

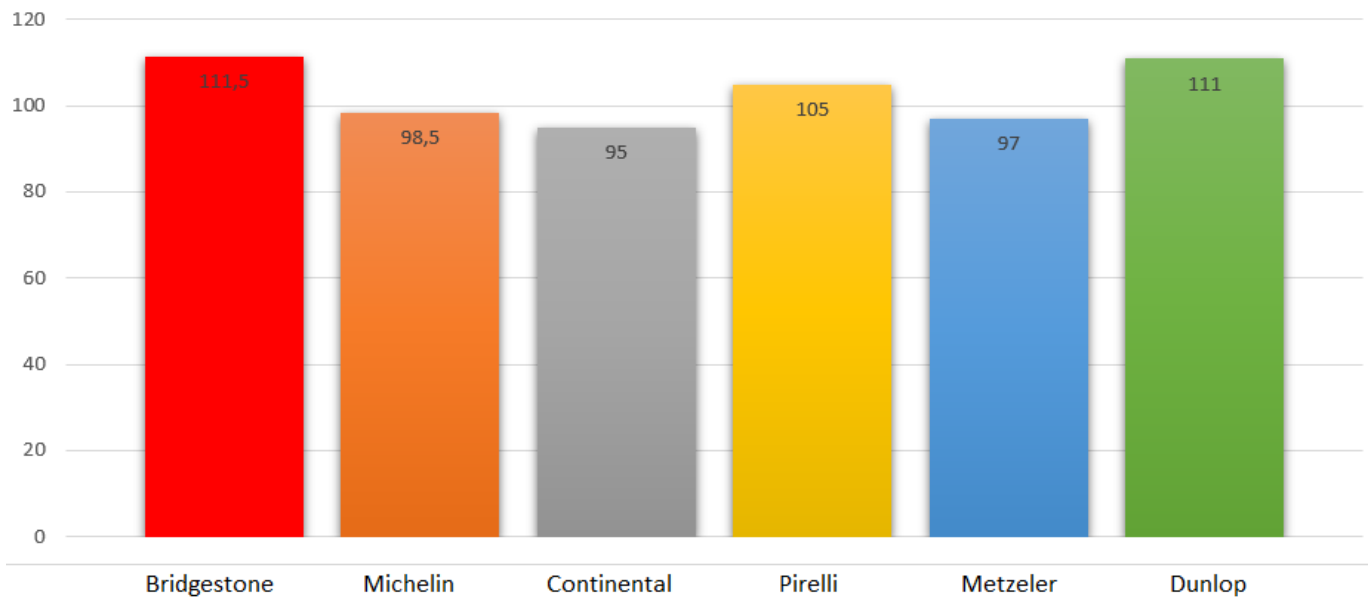
Ring: Stable at high speed, no shivering or wobbling felt.

Tables on rating and lap times on dry Handling

			Set	1	1	1	1	1	1
			Brand	Michelin	Continental	Pirelli	Bridgestone	Metzeler	Dunlop
			Pattern						
DRY	Stability	H/S Stability	\10	7,5	7	7,5	8	7,5	8
		Cornering Stability	\10	7	6,5	7	8	7	8
		Braking Stability		7	8	7	8	8	8
	Handling	Handling lightness		6,5	6	8	8	7	8
		Handling linearity		7	6,5	7,5	8	7	8
		Precision		7	6,5	8	8	6,5	8
	Grip	Cornering Grip Feel FR		6,5	6,5	7,5	8	6,5	8
		Cornering Grip Feel RR		7,5	7	7,5	8	7	8
		Warm up time		8	7,5	8	7,5	7	8
		Traction Grip (in CA)		6,5	6,5	7	8	6,5	7,5
		Straight Traction Grip		7,5	7,5	7,5	8	7	7,5
	Contact	Limit behaviour / Control		7	6,5	7,5	8	6,5	8
		Contact Feel FR		7	6,5	7,5	8	6,5	8
		Contact Feel RR		6,5	6,5	7,5	8	7	8
Total 140 Points			98,5	95	105	111,5	97	111	
Best Lap Time				01:03,8	01:03,3	01:03,1	01:02,8	01:03,7	01:02,7

Title: Dry handling rating (on a total of 140 points)

Score de la cotation Dry Handling - (sur un total de 140 points)

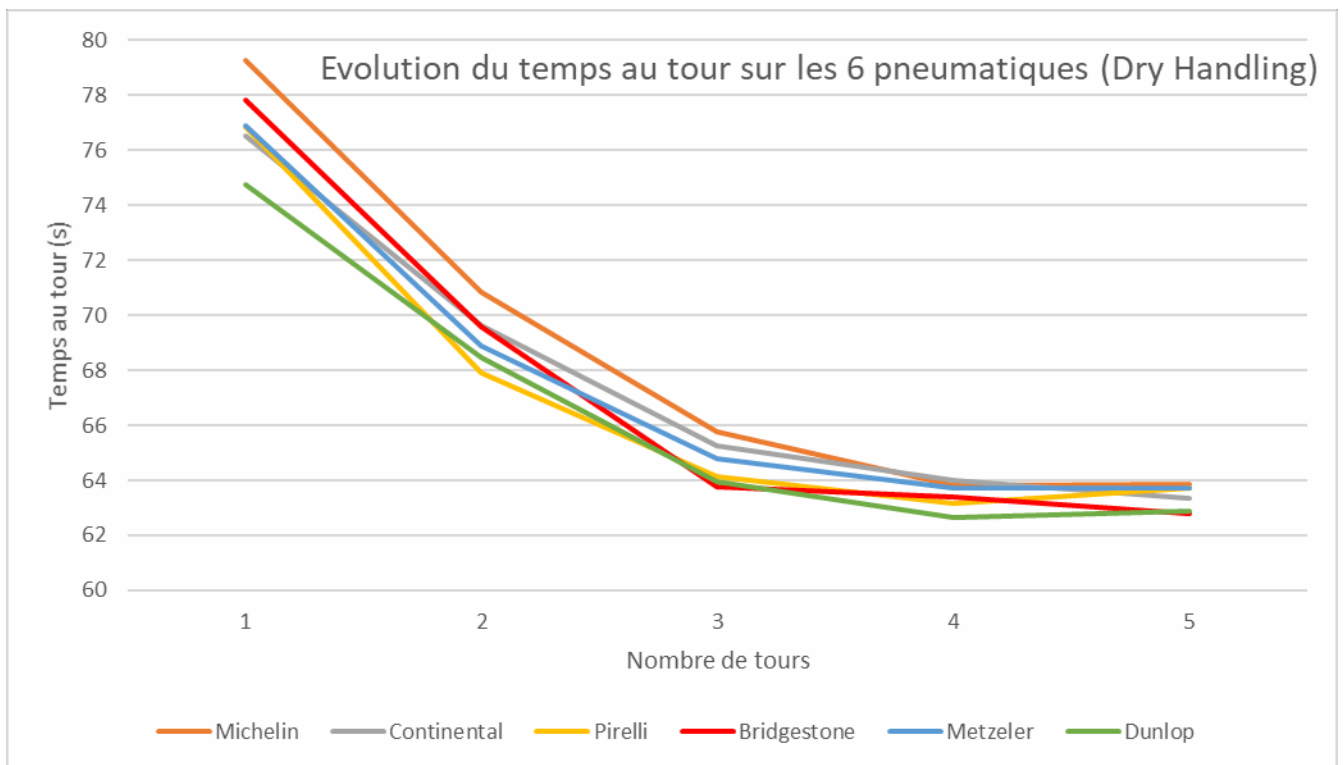


Lap times on the Bridgestone Dry handling track						
	Michelin	Continental	Pirelli	Bridgestone	Metzeler	Dunlop
Break-in and warm-up	01:19,3	01:16,5	01:16,8	01:17,8	01:16,9	01:14,8
	01:10,8	01:09,6	01:07,9	01:09,6	01:08,9	01:08,5
Timed laps	01:05,8	01:05,3	01:04,1	01:04,7	01:04,8	01:03,9
	01:03,8	01:04,0	01:03,1	01:03,8	01:03,7	01:02,7
	01:03,8	01:03,3	01:03,7	01:03,4	01:03,7	01:02,9
				01:02,8		

Title: Lap time evolution on the six tyres

Y-axis: lap time

X-axis: number of laps



Wet handling

Tests conducted on 21/03/2021

A number of laps with the bike on the wet handling track were also conducted using the Dunlop Roadsmart 3 tyre.

The tyres tested on the wet track were the same as those used on the dry track.

The analysis was made from the data between five to seven laps.

- CONTINENTAL ContiRoadAttack 3

During the first few laps, the bike lacks stability in the corner leading to some unpleasant movements. As the tyre warms up, performance improves slightly but the feeling is not pleasant, especially on spots where the water level seems higher.

The bike is not progressive when leaning in. It requires a lot of effort on the handlebars to keep the bike on the corner.

The grip when braking is good, you can brake hard without triggering the ABS.

When opening the throttle on corner exit, the rear tyre stabilises very quickly. Accelerating heavily, traction control intervenes quite promptly. The loss of grip is not exaggerated but lacks progressiveness.

The grip is correct when riding in a straight line and there is only a small amount of wheel spin.

Passing through a big curve in full acceleration, the grip is correct and any traction loss is progressive.

- PIRELLI Gran Turismo Angel GT 2

During the first few laps, the temperature rises correctly, and the feeling is good.

Steering into a corner is precise, leaning in feels correct but lacks some linearity. It requires a bigger effort in order to change the angle.

When leaned over, stability in tight turns is correct. In spots with deeper puddles there is some more movement, but it remains acceptable. The feeling of grip is quite consistent between the front and rear.

When braking heavily there is enough grip. The ABS tends to slightly kick in when engaging brakes firmly.

The traction control intervenes promptly on corner exit. The loss of traction to the track remains progressive and is well controlled by the system.
In a straight line there is some wheel spin but that remains progressive.

- MICHELIN Road 5 2 CT +

The temperature rises correctly during the first few laps.

Steering into a corner is correct but when leaning in, the feeling is immediately average. There is a lot of movement on spots where the water is deeper. These movements occur both at the front and at the rear.

On heavy braking the grip is good, the ABS engages quite quickly on dry braking.

When exiting a corner, the traction control intervenes promptly when accelerating hard, but when accelerating gently or in a fast left-right corner, the rear tyre starts to slide quickly. The process remains progressive, but it is not very reassuring.

- METZELER Roadtec 01

The tyre warms up well, the feeling is correct.

Entering a corner is precise and linear. When leaned over, there are some movements both at the front and the rear, although these are not very disturbing. When leaned over, the feeling with the front tyre is good.

Exiting a corner, the rear tyre lacks grip. The loss of traction is small but still severe. Traction control intervenes quite abruptly. As the tyres get warmer, the grip improves slightly but there is still some wheel slip, even when riding in a straight line.

When braking there is a good grip with little to no ABS.

- DUNLOP Roadsmart 3

The tyre warms up quite quickly with a good feeling up front when leaned over.

Steering into a corner happens precisely and is linear, with the bike remaining stable when leaned over. On spots where the water is deeper there is some movement, but it is not too troublesome.

The feedback from the handlebars is very good, which allows you to be more agile when changing sides.

The average speed when cornering is faster.

When exiting the corner and accelerating while still banked over, the traction control intervenes little and remains progressive.

In the fast left-right, there is some wheel spin when re-engaging the throttle. Some wheel spin also occurs in the straights but remains progressive and easy to control.

The braking grip is very good, the ABS does not intervene much.

- BRIDGESTONE Battlax Sport Touring T32

The temperature rises quite quickly, during the first lap we already notice a good grip and a growing confidence.

When leaned over, there is a little more movement compared to the fifth tyre. Those movements are consistent between the front and the rear.

Entering a curve feels precise and linear. This positive feeling allows the rider to enter the corner more quickly.

When leaning in, the movements caused by higher water levels seem more present compared to the fifth tyre, but the angle of the bike seems more pronounced.

The precision and grip in sections with successive corners allows the rider to swiftly change direction.

The rider can accelerate quickly and firmly when exiting a corner, and when traction control comes into play it happens discreetly and progressively.

In the fast left-right, maintaining a high speed is possible. Some wheelspin occurs when riding through puddles, but these remain progressive and not very extensive.

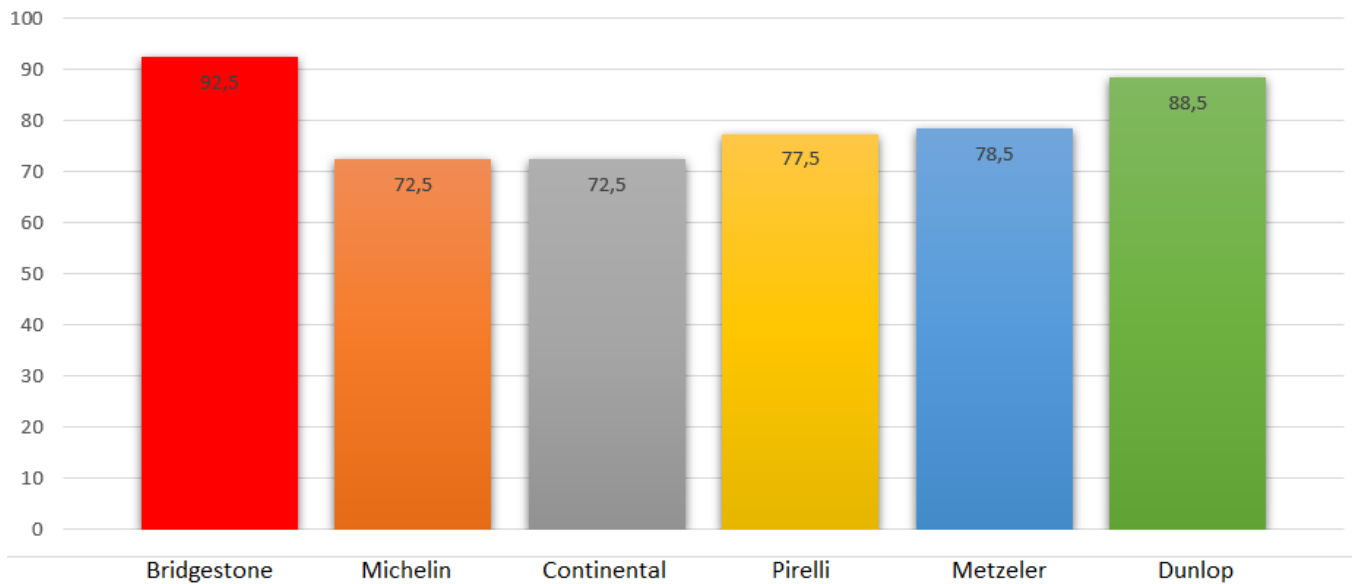
It is possible to brake late and hard as the grip is quite high. If the ABS intervenes, the feeling is minimal and the bike remains stable.

Tables on rating and lap times on Wet Handling

			MAX 10 (0,2 steps)	Continental	Pirelli	Michelin	Metzeler	Dunlop	Bridgestone	
WET	Stability	General Stability		6,5	7	6,5	7	8	8	
	Handling	Handling lightness		6,5	7	7	7,5	8,5	8,5	
		Handling linearity		6,5	7	7	7,5	8,5	8,5	
		Precision		7	7	7	7,5	8	8,5	
	Grip	Cornering Grip Feel FR		7	7	6,5	7	8	8,5	
		Cornering Grip Feel RR		6,5	7	6,5	7	8	8,5	
		Traction Grip (in CA)		6,5	7	6,5	6,5	8	8,5	
		Straight Traction Grip (0° CA)		7	6,5	6,5	6,5	7,5	8	
		Limit behaviour / Control		6	7	6	7	8	8,5	
	Contact	Contact Feel FR		6,5	7,5	6,5	7,5	8	8,5	
		Contact Feel RR		6,5	7,5	6,5	7,5	8	8,5	
	TOTAL WET (max 110)				72,5	77,5	72,5	78,5	88,5	92,5

Wet handling rating (on a total of 110 points)

Score de la cotation Wet Handling - (sur un total de 110 points)

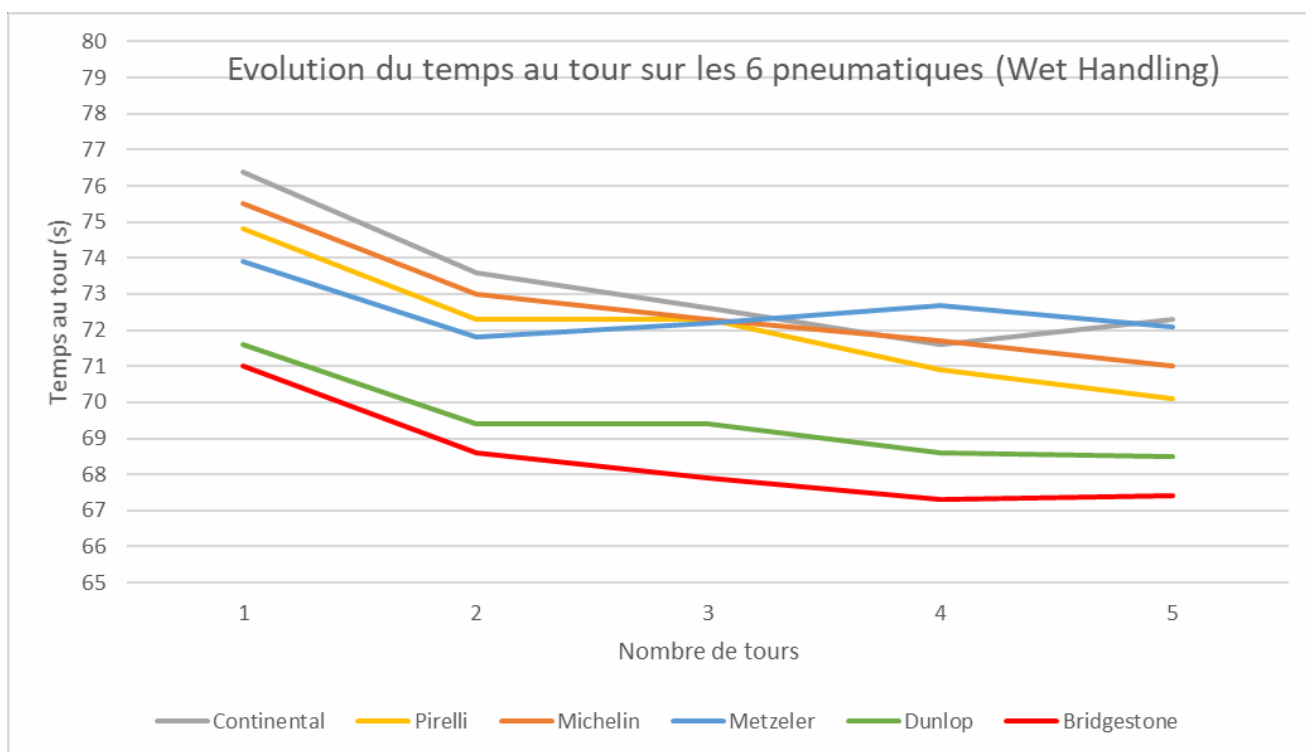


Lap times on the Bridgestone Wet handling track						
	Continental	Pirelli	Michelin	Metzeler	Dunlop	Bridgestone
Warm-up	01:16,4	01:14,8	01:15,5	01:13,9	01:11,6	01:11,0
	01:13,6	01:12,3	01:13,0	01:11,8	01:09,4	01:08,6
Lap times	01:12,6	01:12,3	01:12,3	01:12,2	01:09,4	01:07,9
	01:11,6	01:10,9	01:11,7	01:12,7	01:08,6	01:07,3
	01:12,3	01:10,1	01:11,0	01:12,1	01:08,5	01:07,4
	01:13,2					01:07,2

Title: Lap time evolution on the 6 tyres

Y-axis: lap time

X-axis: number of laps



Results brake test from 100 to 0 km/h wet and dry conditions

For the brake test we used a second set of new tyres. break-in was carried out over two laps on the dry handling track

Date	22/03/2021	Test vehicle	Kawazaki Z900cc	Test pilot	B.Destoop
Weather	0	T° track	30°		
Vehicle load type	1 person		Total mass of test vehicle		0

DISTANCES D'ARRET SUR	→	STOPPING DISTANCE ON
SOL SEC	→	DRY SURFACE
SOL MOUILLE	→	WET SURFACE
(en mètres)	→	(in metres)
Freinage	→	Braking
Pneu de référence	→	reference tyre
Pneu test	→	Test tyre
Pourcentage d'écart entre configuration test et celle de référence	→	Percentage difference between test and reference setup

DISTANCES D'ARRET SUR	SOL SEC (en mètres)	DISTANCES D'ARRET SUR	SOL MOUILLE (en mètres)
	Freinage 100 → 0		Freinage 100 → 0
Pneu de référence : Bridgestone Battlax Sport Touring T32	45,56	Pneu de référence : Bridgestone Battlax Sport Touring T32	50,08
Pneu test : Michelin Road 5 2 CT+	46,89	Pneu test : Michelin Road 5 2 CT+	49,24
Pourcentage d'écart entre configuration test et celle de référence	2,92%	Pourcentage d'écart entre configuration test et celle de référence	-1,67%

DISTANCES D'ARRET SUR	SOL SEC (en mètres)	DISTANCES D'ARRET SUR	SOL MOUILLE (en mètres)
	Freinage 100 → 0		Freinage 100 → 0
Pneu de référence : Bridgestone Battlax Sport Touring T32	45,56	Pneu de référence : Bridgestone Battlax Sport Touring T32	50,08
Pneu test : Continental Contiroad attack 3	46,32	Pneu test : Continental Contiroad attack 3	46,84
Pourcentage d'écart entre configuration test et celle de référence	1,68%	Pourcentage d'écart entre configuration test et celle de référence	-6,46%

DISTANCES D'ARRET SUR	SOL SEC (en mètres)	DISTANCES D'ARRET SUR	SOL MOUILLE (en mètres)
	Freinage 100 → 0		Freinage 100 → 0
Pneu de référence : Bridgestone Battlax Sport Touring T32	45,56	Pneu de référence : Bridgestone Battlax Sport Touring T32	50,08
Pneu test : Pirelli Grand Turismo Angel GT 2	45,40	Pneu test : Pirelli Grand Turismo Angel GT 2	49,02
Pourcentage d'écart entre configuration test et celle de référence	-0,34%	Pourcentage d'écart entre configuration test et celle de référence	-2,11%

DISTANCES D'ARRET SUR	SOL SEC (en mètres)	DISTANCES D'ARRET SUR	SOL MOUILLE (en mètres)
	Freinage 100 → 0		Freinage 100 → 0
Pneu de référence : Bridgestone Battlax Sport touring T32	46,86	Pneu de référence : Bridgestone Battlax Sport touring T32	49,09
Pneu test : Metzeler Road Tec 01	45,31	Pneu test : Metzeler Road Tec 01	45,81
Pourcentage d'écart entre configuration test et celle de référence	-3,31%	Pourcentage d'écart entre configuration test et celle de référence	-6,68%

DISTANCES D'ARRET SUR	SOL SEC (en mètres)	DISTANCES D'ARRET SUR	SOL MOUILLE (en mètres)
	Freinage 100 → 0		Freinage 100 → 0
Pneu de référence : Bridgestone Battlax Sport touring T32	46,86	Pneu de référence : Bridgestone Battlax Sport touring T32	49,09

Pourcentage d'écart entre configuration test et celle de référence 1,89%

Pourcentage d'écart entre configuration test et celle de référence 7,29%

Results brake test between 80 and 10 km/h wet and dry conditions

DISTANCES D'ARRET SUR SOL SEC (en mètres)			DISTANCES D'ARRET SUR SOL MOUILLE (en mètres)		
	Freinage	80 → 10		Freinage	80 → 10
Pneu de référence :			Pneu de référence :		
Bridgestone Battlax Sport Touring T32		27,88	Bridgestone Battlax Sport Touring T32		28,65
Pneu test :			Pneu test :		
Michelin Road 5 2 CT+		28,47	Michelin Road 5 2 CT+		28,82
Pourcentage d'écart entre configuration test et celle de référence		2,14%	Pourcentage d'écart entre configuration test et celle de référence		0,58%

DISTANCES D'ARRET SUR SOL SEC (en mètres)			DISTANCES D'ARRET SUR SOL MOUILLE (en mètres)		
	Freinage	80 → 10		Freinage	80 → 10
Pneu de référence :			Pneu de référence :		
Bridgestone Battlax Sport Touring T32		27,88	Bridgestone Battlax Sport Touring T32		28,65
Pneu test :			Pneu test :		
Continental Contiroad attack 3		27,82	Continental Contiroad attack 3		27,26
Pourcentage d'écart entre configuration test et celle de référence		-0,22%	Pourcentage d'écart entre configuration test et celle de référence		-4,86%

DISTANCES D'ARRET SUR SOL SEC (en mètres)			DISTANCES D'ARRET SUR SOL MOUILLE (en mètres)		
	Freinage	80 → 10		Freinage	80 → 10
Pneu de référence :			Pneu de référence :		
Bridgestone Battlax Sport Touring T32		27,88	Bridgestone Battlax Sport Touring T32		28,65
Pneu test :			Pneu test :		
Pirelli Grand Turismo Angel GT 2		27,62	Pirelli Grand Turismo Angel GT 2		28,30
Pourcentage d'écart entre configuration test et celle de référence		-0,92%	Pourcentage d'écart entre configuration test et celle de référence		-1,23%

DISTANCES D'ARRET SUR SOL SEC (en mètres)			DISTANCES D'ARRET SUR SOL MOUILLE (en mètres)		
	Freinage	80 → 10		Freinage	80 → 10
Pneu de référence :			Pneu de référence :		
Bridgestone Battlax Sport touring T32		27,59	Bridgestone Battlax Sport touring T32		28,25
Pneu test :			Pneu test :		
Metzeler Road Tec 01		27,64	Metzeler Road Tec 01		27,35
Pourcentage d'écart entre configuration test et celle de référence		0,16%	Pourcentage d'écart entre configuration test et celle de référence		-3,20%

DISTANCES D'ARRET SUR SOL SEC (en mètres)			DISTANCES D'ARRET SUR SOL MOUILLE (en mètres)		
	Freinage	80 → 10		Freinage	80 → 10
Pneu de référence :			Pneu de référence :		
Bridgestone Battlax Sport touring T32		27,59	Bridgestone Battlax Sport touring T32		28,25
Pneu test :			Pneu test :		
Dunlop Road Smart 3		28,26	Dunlop Road Smart 3		29,63
Pourcentage d'écart entre configuration test et celle de référence		2,40%	Pourcentage d'écart entre configuration test et celle de référence		4,88%

Results brake test between 50 and 10 km/h wet and dry conditions

DISTANCES D'ARRET SUR SOL SEC (en mètres)			DISTANCES D'ARRET SUR SOL MOUILLE (en mètres)		
	Freinage	50 → 10		Freinage	50 → 10
Pneu de référence :			Pneu de référence :		
Bridgestone Battlax Sport Touring T32		10,84	Bridgestone Battlax Sport Touring T32		10,73
Pneu test :			Pneu test :		
Michelin Road 5 2 CT+		10,91	Michelin Road 5 2 CT+		10,50
Pourcentage d'écart entre configuration test et celle de référence		0,65%	Pourcentage d'écart entre configuration test et celle de référence		-2,08%

DISTANCES D'ARRET SUR SOL SEC (en mètres)			DISTANCES D'ARRET SUR SOL MOUILLE (en mètres)		
	Freinage	50 → 10		Freinage	50 → 10
Pneu de référence :			Pneu de référence :		
Bridgestone Battlax Sport Touring T32		10,84	Bridgestone Battlax Sport Touring T32		10,73
Pneu test :			Pneu test :		
Continental Contiroad attack 3		10,59	Continental Contiroad attack 3		10,57
Pourcentage d'écart entre configuration test et celle de référence		-2,31%	Pourcentage d'écart entre configuration test et celle de référence		-1,46%

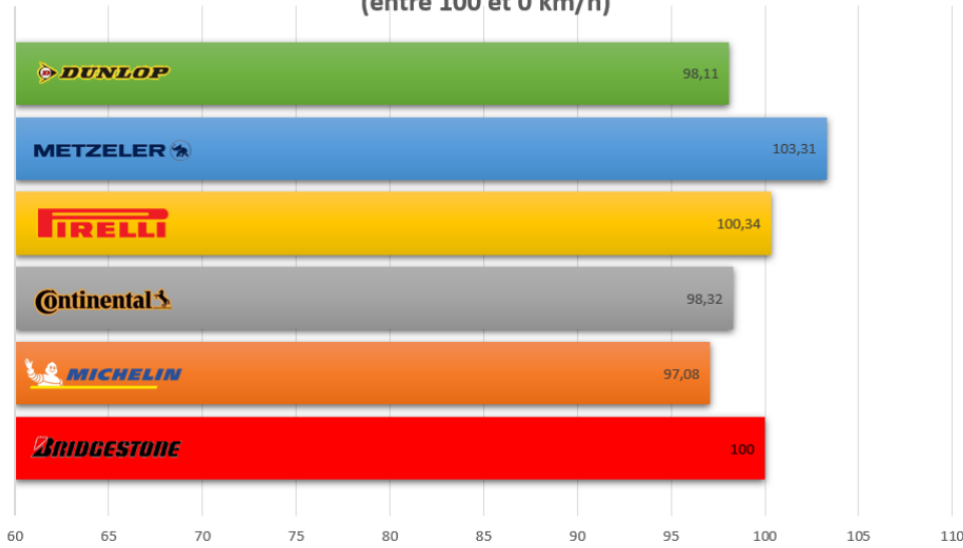
DISTANCES D'ARRET SUR SOL SEC (en mètres)			DISTANCES D'ARRET SUR SOL MOUILLE (en mètres)		
	Freinage	50 → 10		Freinage	50 → 10
Pneu de référence :			Pneu de référence :		
Bridgestone Battlax Sport Touring T32		10,84	Bridgestone Battlax Sport Touring T32		10,73
Pneu test :			Pneu test :		
Pirelli Grand Turismo Angel GT 2		10,80	Pirelli Grand Turismo Angel GT 2		10,69
Pourcentage d'écart entre configuration test et celle de référence		-0,43%	Pourcentage d'écart entre configuration test et celle de référence		-0,31%

DISTANCES D'ARRET SUR SOL SEC (en mètres)			DISTANCES D'ARRET SUR SOL MOUILLE (en mètres)		
	Freinage	50 → 10		Freinage	50 → 10
Pneu de référence :			Pneu de référence :		
Bridgestone Battlax Sport touring T32		10,71	Bridgestone Battlax Sport touring T32		10,82
Pneu test :			Pneu test :		
Metzeler Road Tec 01		10,54	Metzeler Road Tec 01		10,58
Pourcentage d'écart entre configuration test et celle de référence		-1,65%	Pourcentage d'écart entre configuration test et celle de référence		-2,25%

DISTANCES D'ARRET SUR SOL SEC (en mètres)			DISTANCES D'ARRET SUR SOL MOUILLE (en mètres)		
	Freinage	50 → 10		Freinage	50 → 10
Pneu de référence :			Pneu de référence :		
Bridgestone Battlax Sport touring T32		10,71	Bridgestone Battlax Sport touring T32		10,82
Pneu test :			Pneu test :		
Dunlop Road Smart 3		10,84	Dunlop Road Smart 3		10,83
Pourcentage d'écart entre configuration test et celle de référence		1,21%	Pourcentage d'écart entre configuration test et celle de référence		0,03%

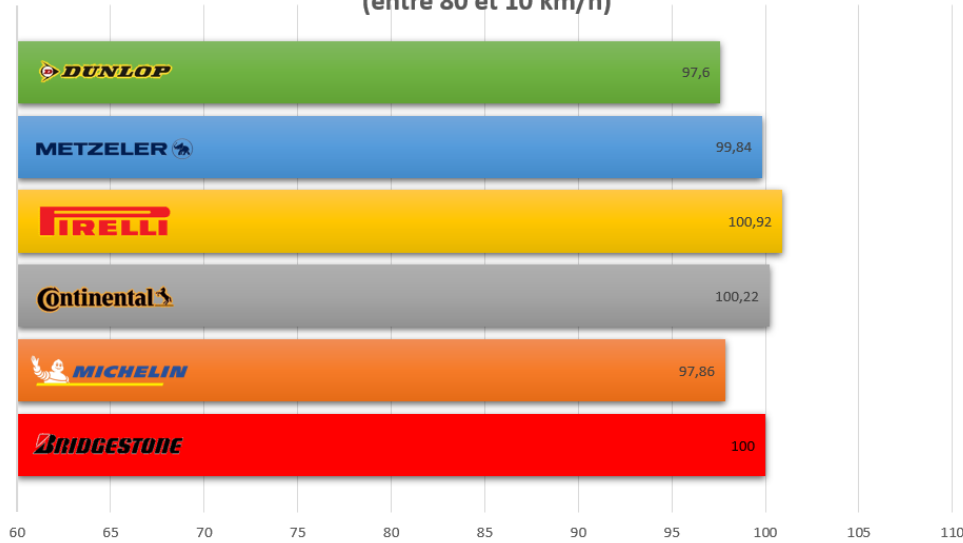
**Pourcentage de performance - Distance d'arrêt sol sec
(entre 100 et 0 km/h)**

Performance percentage –
stopping distance dry surface
(between 100 and 0 km/h)



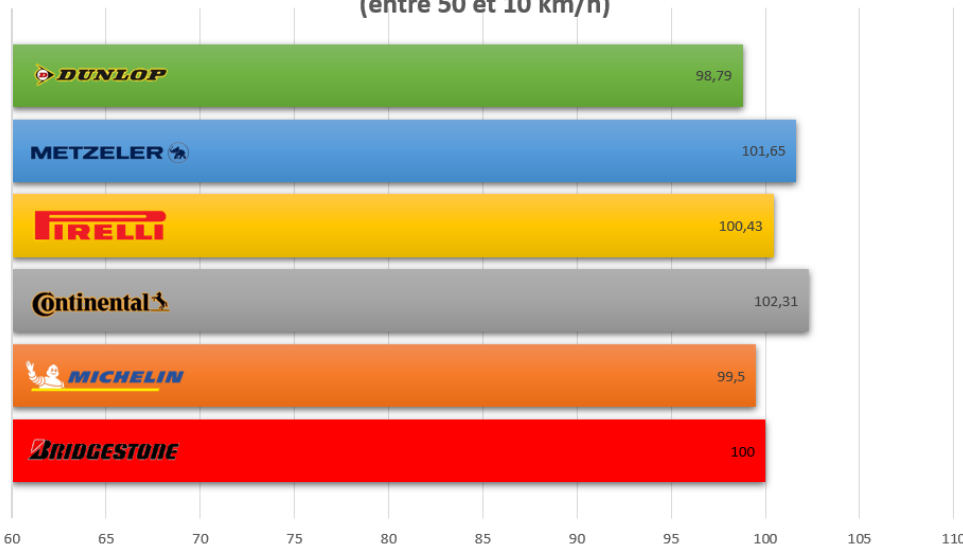
**Pourcentage de performance - Distance d'arrêt sol sec
(entre 80 et 10 km/h)**

Performance percentage –
stopping distance dry surface
(between 80 and 10 km/h)

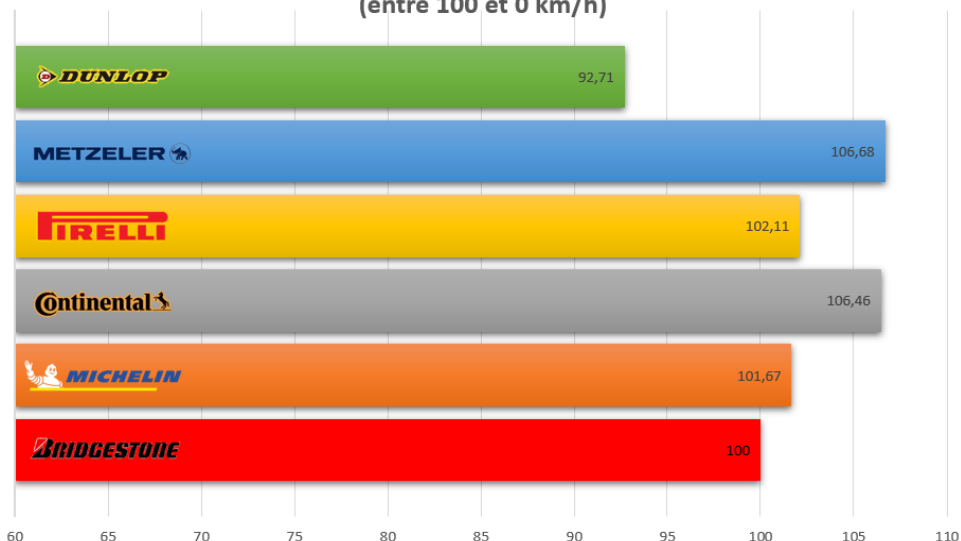


**Pourcentage de performance - Distance d'arrêt sol sec
(entre 50 et 10 km/h)**

Performance percentage –
stopping distance dry surface
(between 50 and 10 km/h)

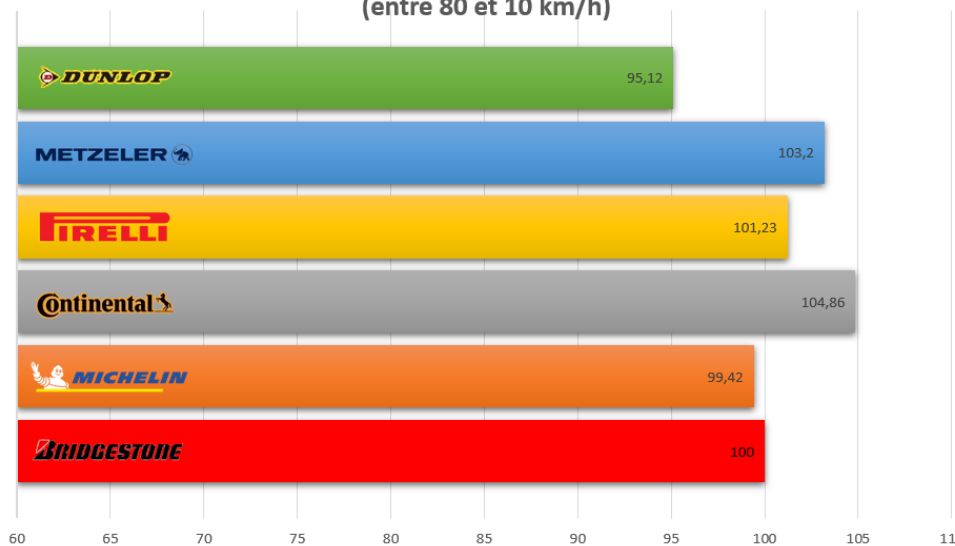


**Pourcentage de performance - Distance d'arrêt sol mouillé
(entre 100 et 0 km/h)**

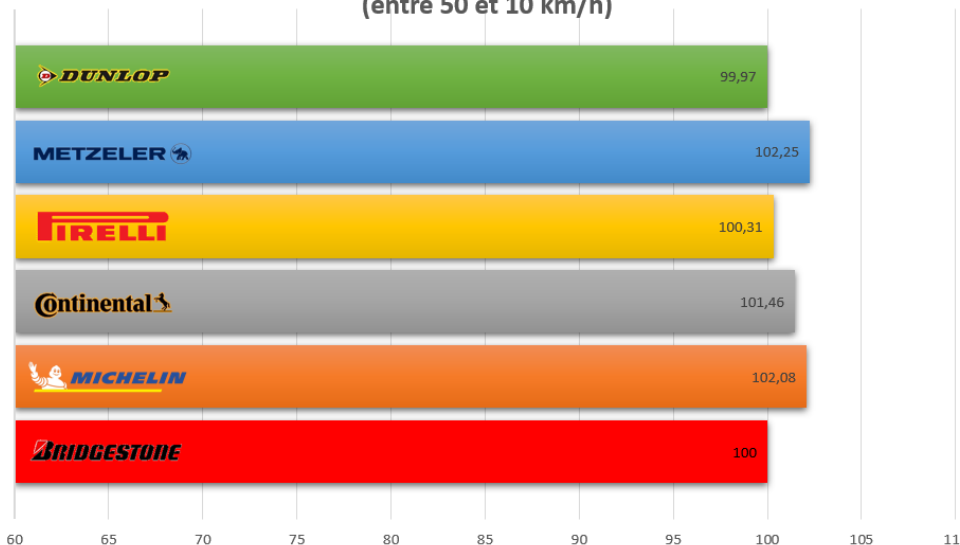


Performance percentage –
stopping distance wet surface
(between 100 and 0 km/h)

**Pourcentage de performance - Distance d'arrêt sol mouillé
(entre 80 et 10 km/h)**



**Pourcentage de performance - Distance d'arrêt sol mouillé
(entre 50 et 10 km/h)**



Performance percentage –
stopping distance wet surface
(between 80 and 10 km/h)

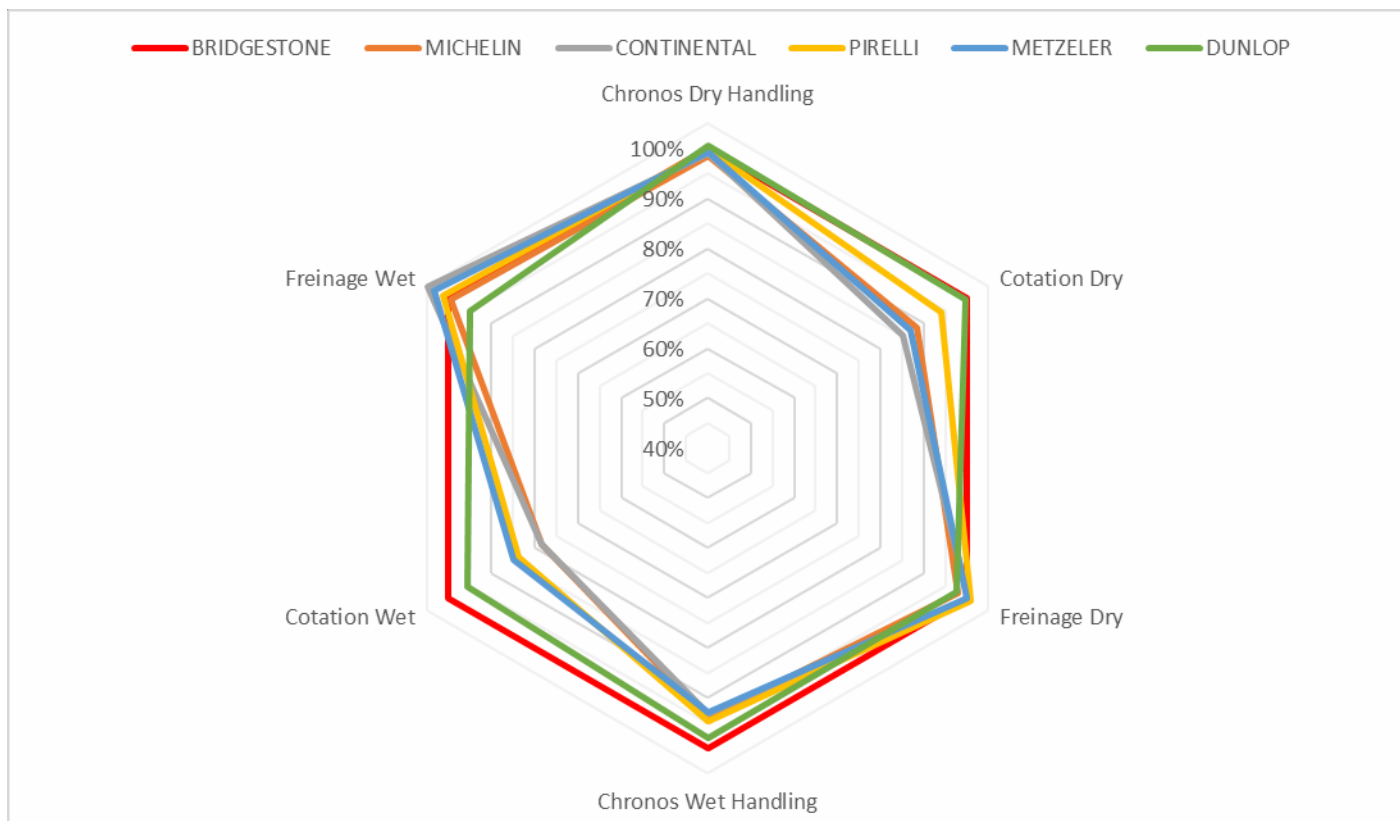
Performance percentage –
stopping distance wet surface
(between 50 and 10 km/h)

IV- Conclusion

The subjective and timed test on dry surface indicates that the performance of the Bridgestone Battlax Sport touring T32 over three laps is very close to the performance of the Dunlop Roadsmart 3, requiring only a little more warm-up time. Subjectively, it gives a good feeling both in slow and fast corners, delivers precision and corner stability and has braking power both in corners and straights. On wet surface it is by far the best in performance. When it comes to feeling, it provides a high level of confidence in all conditions: leant over, high-speed cornering, accelerating in corners or on straights. It also provides confidence while braking on corner entry, or on a straight line.

When it comes to stopping distances, it is not the best performer despite what was subjectively felt. The procedure used for this test can explain this. In our goal to restrain the influence of the rider on the result, we conducted emergency brake tests, aiming to activate the ABS as soon as possible. Some brands are more in correspondence with the bike's suspension which makes sure the tyre stays in better contact with the ground, giving better steering with less deviation. Other brands, such as Bridgestone and Dunlop, generate a slight rebound upon applying the brakes, resulting in less accurate steering and thus lengthening the braking distance.

SPIDER DIAGRAM



	BRIDGESTONE	MICHELIN	CONTINENTAL	PIRELLI	METZELER	DUNLOP
Chronos Dry Handling	100,0%	98,6%	99,0%	99,9%	99,2%	100,7%
Cotation Dry	100,0%	88,3%	85,2%	94,2%	87,0%	99,6%
Freinage Dry	100,0%	97,9%	100,2%	100,9%	99,8%	97,6%
Chronos Wet Handling	100,0%	93,9%	93,1%	94,7%	92,9%	98,1%
Cotation Wet	100,0%	78,4%	78,4%	83,8%	84,9%	95,7%
Freinage Wet	100,0%	99,4%	104,9%	101,2%	103,2%	95,1%

Grille de cotation

		Cotation subjective des prestations véhicules CERAM									
		Zone des refus				Zone critique		Zone Acceptable			
		1	2	3	4	5	6	7	8	9	10
ECHELLES	Cotation	1	2	3	4	5	6	7	8	9	10
	Prestation	TRÈS DÉFAILLANTE	DÉFAILLANTE	TRÈS INSUFFISANTE	INSUFFISANTE	MÉDIOCRE	PASSABLE	SATISFAISANTE	TRÈS SATISFAISANTE	EXCELLENTE	EXCEPTIONNELLE
OBSERVATIONS	Appréciation	Intolérable			Très Gênant	Très décevant	Décevant	Acceptable	Convaincant	Séduisant	
	Réaction du client	Refuse				Se plaint	Tolère	Accepte	Apprécie	Perçoit la qualité particulière de la prestation	
	Symptômes	Panne (sécurité)	Panne	Fonction dégradée	Défaut très fort	Défaut fort	Défaut moyen	Défaut de spécialiste	Aucun Défaut		
	Conséquences pour le client	Immobilisation véhicule		Demande de retouche systématique		Demande de retouche fréquente	Demande de retouche occasionnelle	Satisfaction	Forte satisfaction	Très forte satisfaction	