Hankook Ventus V12 evo

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Tyre size : 245/40ZR17 95Y & 225/40ZR18 92Y
Vehicle : Subaru WRX
Scrub in period : ~ 300kms

Hankook is moving from strength to strength, rated as the world's **7th** largest tyre manufacturer in 2007, industry analyst expect Hankook to climb further up the ladder when the total sales figures are released for 2008 and even hit top 5 in the very near future..

The best way to describe Hankook Ventus V12 evo, the latest addition to the family is; "Batman". As Bruce Wayne pottering around doing his daily task, V12 evo has finesse, poise and charm of a true gentleman. Once the elements open up or pushed to the limit, Bruce whips off his suit and dons his black cape; V12 evo suddenly becomes accurate, sharp and dispose of dangers quietly. A rare combination for comfort street performance tyres as they usually lack an element or the other.

The technology used to develop V12 evo was gained on the race track and seamlessly delivers one of the smoothest street rides out there. A good upgrade from standard OEM tyre, V12 evo is so impressive that it fringes on the border of potential track use; though I will not recommend that as the elder siblings are more capable; namely Ventus R-s2 & Ventus S1 evo.

Thread pattern

With the use of Kontrol Technology, Hankook Tyre's research and development philosophy as well as proprietary innovations created V12 evo. Ventus V12 evo a Z-rated street tyre utilises the latest technology to maximize steering response and improve high-speed stability with the use of ultra-high performance tread compound.

Kontrol Technology that was used to design this attractive thread pattern

The directional tread of the tire gives a sophisticated look and improves traction while preventing against hydroplaning with the tyre's swift water drainage system ensuring safety on wet surfaces.

Other benefits include:

- **Solid center tracking rib** – enhances braking performance and ensures optimal road contact pressure and controlled steering response at high speeds
- **3D effect on block edge** – evenly distributes road surface contact for optimal handling and braking
- **HPSR (High Tg Polymer & Specific Resin) Compound** – ensures outstanding traction and braking on wet roads
- **High-density nylon reinforcement belt** – allows even distribution of ground contact pressure during cornering
- **Y-shape channels, linear grooves and MTR (Multiple Tread Radius)** – effectively sweeps water away from the tire

Sepang Track tests

Hankook V12 evo ready to take on Sepang track

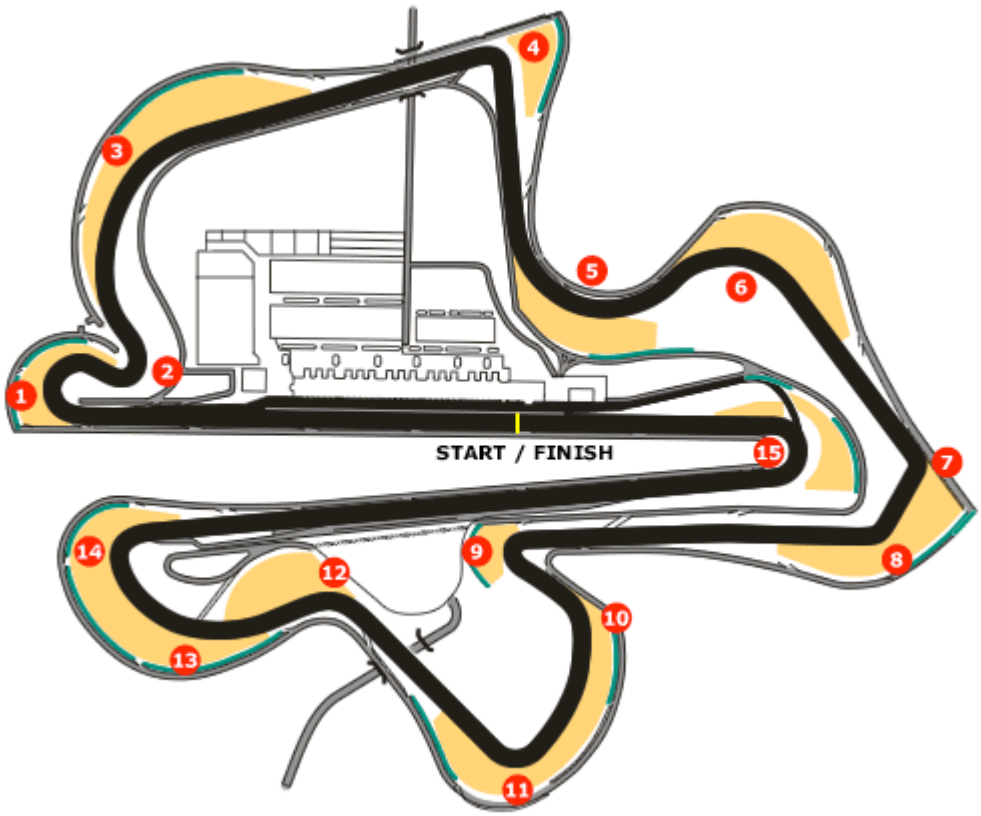
What better venue than to test V12 evo than in Sepang. We are lucky to have access of a permanent F1 race track just ~330km away. Sepang is categories as a smooth track so grip is very important. After several easy laps around Sepang to warm up the engine, tyres & brakes to optimal operating temperature; we pit to check the tyre pressure and set it to the sweet spot. Preferred pressure is to set it a couple of psi higher than normal street use just to stiffen the tyre sidewalls for the high speed flat out sweepers of Sepang. We are now ready to test the V12 evo.

Dry Grip & Handling

T2 is a slow 2nd gear corner slightly off camber, mild under steer from V12 evo but a quick flick of the throttle & steering does the trick to turn it in the right direction. Easy to throttle steer the V12 evo.

V12 evo handles fast sweeper with much confidence. T3 is a right hander and one of the fastest sweepers in Sepang; this is taken flat out on 4th gear exiting speed in excess of 160km/h. The centrifugal force loads up on the left side of the car and V12 evo maintained consistent steering and traction heading to T4.

Sepang being a technical track, comprises of series of turns inter-link; mess up 1 corner and you do not get the optimal speed for the next 3 corners. Turn 5 is the start of series of 4 inter-linked tricky corners; T5 a high speed left sweeper followed by a transition to T6 a fast right sweeper then directly into double apex T 7 & T8. V12 evo exhibited precise & sharp direction changes from T5 to T6 flat out in 4th gear; steering feel was superb with the aid of solid center rib. Charging thru T7 & T8 with V12s on the limit the tyre provides an audible warning while it mildly under steers, quick flick of the throttle gets the front tyres to bite and turn in.



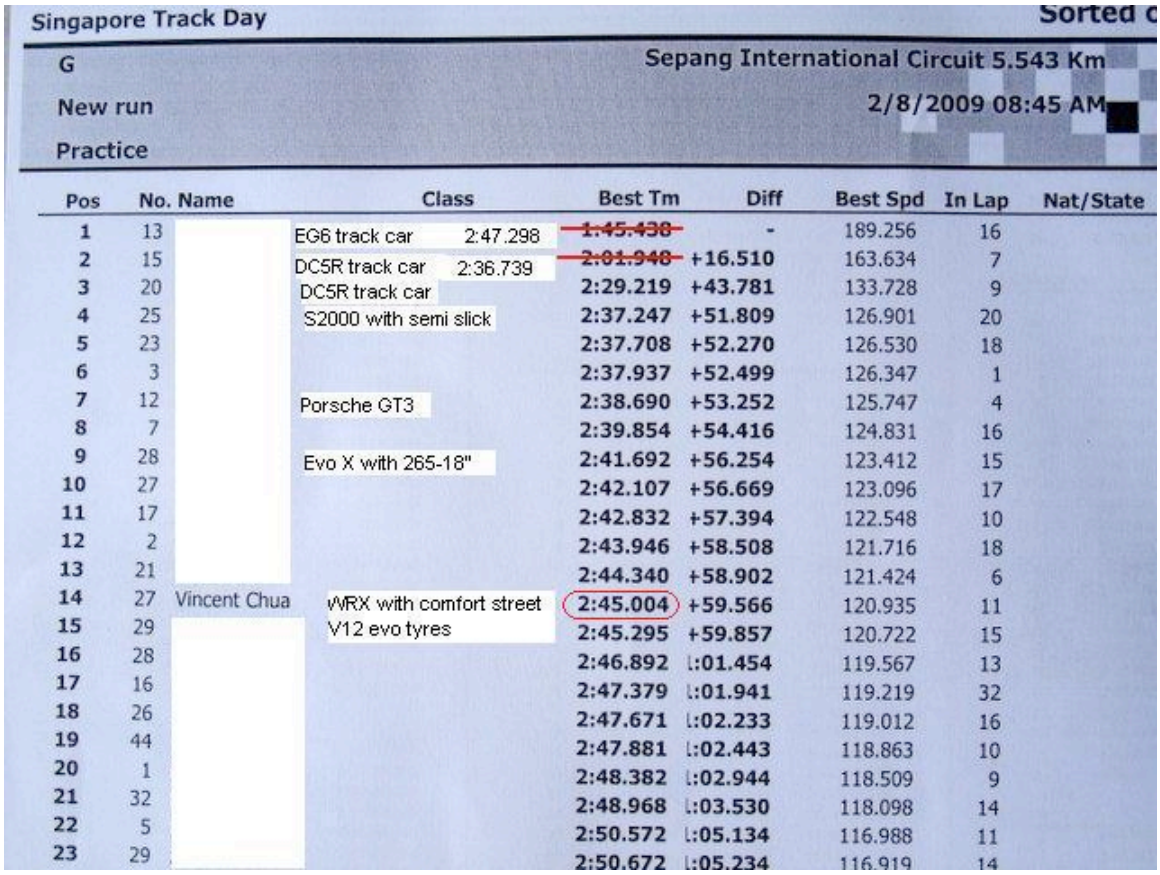
Courtesy of SEPANG INTERNATIONAL CIRCUIT

Dry Braking
Sepang is extremely heavy on the brakes and the tyres have to withstand the loads and brake torque involved. Sepang has a variety of gradients and turns that places high importance to braking. Hankook's HSPR Compound provides the braking traction required with secure braking without even a wriggle from the tail.

Turn 9 is probably one of the heaviest braking in terms of load to a single tyre. It is a down slope into a sharp left hand low speed corner 2nd gear corner; most of the braking stress is loaded into the front right tyre just before the power is applied. V12 slowed the car down with poise and great control.

Turn 14 is an extremely tricky corner that is down hill from T13 and tightens into a sharp right corner, very easy to lock up the tyres in this corner or run wide into the gravel when the tyres do not have sufficient grip. Carrying maximum speed in 4th gear down hill through T13 and then trail braking into Turn 14 is the trick. With the front left tyre taking most of the load while braking into T14, V12 evo slowed the car with ease and turn in bite was secure. The ABS did not even kick in.

Highest speed braking is into T15; slowing down from ~200km/h down to 3rd gear turning into T15, V12 exhibited braking in the direction of intended travel without any hint of tramlining.



Singapore Track Day — Sorted c

G — Sepang International Circuit 5.543 Km

New run — 2/8/2009 08:45 AM

Practice

Pos	No.	Name	Class	Best Tm	Diff	Best Spd	In Lap	Nat/State
1	13		EG6 track car 2:47.298	~~1:45.438~~	-	189.256	16	
2	15		DC5R track car 2:36.739	~~2:01.948~~	+16.510	163.634	7	
3	20		DC5R track car	2:29.219	+43.781	133.728	9	
4	25		S2000 with semi slick	2:37.247	+51.809	126.901	20	
5	23			2:37.708	+52.270	126.530	18	
6	3			2:37.937	+52.499	126.347	1	
7	12		Porsche GT3	2:38.690	+53.252	125.747	4	
8	7			2:39.854	+54.416	124.831	16	
9	28		Evo X with 265-18"	2:41.692	+56.254	123.412	15	
10	27			2:42.107	+56.669	123.096	17	
11	17			2:42.832	+57.394	122.548	10	
12	2			2:43.946	+58.508	121.716	18	
13	21			2:44.340	+58.902	121.424	6	
14	27	Vincent Chua	WRX with comfort street	2:45.004	+59.566	120.935	11	
15	29		V12 evo tyres	2:45.295	+59.857	120.722	15	
16	28			2:46.892	l:01.454	119.567	13	
17	16			2:47.379	l:01.941	119.219	32	
18	26			2:47.671	l:02.233	119.012	16	
19	44			2:47.881	l:02.443	118.863	10	
20	1			2:48.382	l:02.944	118.509	9	
21	32			2:48.968	l:03.530	118.098	14	
22	5			2:50.572	l:05.134	116.988	11	
23	29			2:50.672	l:05.234	116.919	14	

Best lap on V12 evo in Sepang is 2min 45s

Track test conclusion
After 3 separate torturous track days of testing in Sepang and over 50 laps of punishment to a single set of tyre clocking the fastest lap time of 2min 45sec flat (official transponder timing); this was done with a 1.4 ton production car still with creature comforts and amplifier in tact shod with mainstream comfort street

performance tyre. Truly impressive, as an F1 car does 1 lap in ~1 min 35s, Valentino ROSSI aka THE DOCTOR does it on his Yamaha does it in ~2min 2s and a GT 300 class race car does the lap in ~2 min 10s.

Recommended to pump to manufacturer's pressure for regular street use, if you want a slightly sportier drive then increase by 1-2 psi pressure which we did to find the sweet spot for the track test. V12 evo demonstrated consistent behaviour up to 8 continuous hot laps before they started to get greasy, normal street tyres typically start to slide after 3-4 hot laps on Sepang. Closer inspection to the V12 showed even wear to the tyres with no deformation nor bulging to the carcass, bearing in mind an F1 race is 56 laps round Sepang that typically uses 3 sets of tyres. This comfort street tyre was not designed for this task but was subject to unthinkable torture on the race track. V12 evo passed with flying colours to meet any normal use on the streets.

This brings to a successful conclusion of three testing sessions at Sepang track.

From left to right ; Brand new V12 evo, best of 4 worn tyres, totally chewed up of 4 worn tyres after 50 laps in Sepang (Children, do not try this at home without adult supervision)

Wet grip & Wet Handling

It was fortunate to get caught in a torrential thunder storm on a separate road trip along the Cyber Jaya HW towards Ipoh. The rain was so heavy that many cars were driving at speeds of ~70km/h. Even in the worn state after Sepang track test, the tyres were still able to maintain speeds of 20 km/h above the M'sia HW speed limit as the V12 evo has wide linear grooves & aggressive Y-shaped pattern that ejects water effectively both to the sides and back of the car. Longitudinal wet grip is fantastic, hydroplane resistance was kept at bay slicing through the water with ease considering these are wide 245 profile tyres; visibility was the bigger issue rather than grip.

With such high longitudinal grip in the wet, the lateral hydroplane feels is little lacking when entering a corner, it's not the lateral grip is poor; it's just that the longitudinal grip is very good. Lateral grip is still way above average compared to majority of street tyre

Medium and fast sweepers were taken with ease, slight easing off the throttle to get the car to turn in then gingerly powering out of the corner in the wet does the trip. Lateral grip was high with good cornering stability.

A consistent characteristic of Hankook tyre is they generally have good wet grip performance as compared to their peers in the same class.

Wet braking
In the wet, V12 really shines when slowing down with poise and tenacious grip from all speeds. Only when the puddles are much deeper and sudden excessive brake pressure applied did the ABS kick in. The V12 stopped in the direction of intended travel with no hint of any possible slide or fish tailing.

Comfort
For a premium performance tyre category, these are considered comfortable tyres. Even when the pressure is bumped up by a couple of psi to find the sweet spot, comfort is not affected much but provides a sportier drive. Hankook has found the balance between sportiness without much sacrifice to comfort.

Noise
For a tyre with this level of performance, it's surprising to have such a low overall noise level. Only certain stretches of roads do they emit some noise but then again any tyre will produce noise on those particular stretches anyway.

Final words
Hankook has designed and built a great tyre for street use that surpassed all expectations and testing in Sepang; Ventus V12 evo is the clear choice as a mainstream comfort street tyre that is good in all departments and will keep you and your family safe on the roads in all adverse conditions.

For those that only want the best, Hankook S1 evo would cater for UHPT that is in the top echelon of street performance and it's shod on a Tune It! Safe! Polizi vehicle in Brabus rocket design based on a Mercedes CLS. A long term test was done earlier, check out Sin Hong Hwa website. For the occasional weekend track junkie, Hankook Ventus R-s2 the grippiest of all Hankook street tyres is still the bet.

Hankook tyre support Motor sports and is proud to be recognised to be official tyre for Traction Circle Club.

Watch out for long term test for V12 evo.

From left to right ; VENTUS V12 evo (family friendly), VENTUS R-s2 (weekend track warrior), VENTUS S1 evo (UHPT bred)

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