

NEWS RELEASE



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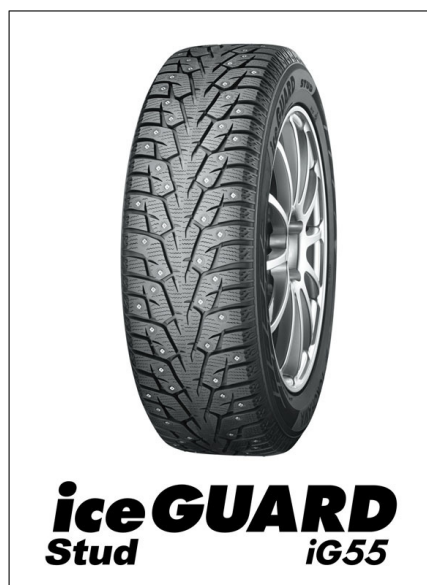
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Yokohama Rubber to Release “iceGUARD Stud iG55” for Passenger Cars in Northern Europe and Russia

Tokyo – The Yokohama Rubber Co., Ltd., announced today that it will introduce a new studded tire for passenger vehicles, the “iceGUARD Stud iG55,” into the northern Europe and Russian markets ahead of the 2014 autumn/winter snowy season. The “iceGUARD Stud iG55” seeks to improve tire performance on icy surfaces while improving stud retention. The tire is available in sizes from 13 inch to 20 inch.

The tire’s development was based on a complete revision of the tread pattern, stud shape, and tire compound. The new tread pattern maximizes the tire’s contact with the road surface and enhances the edging effect. The new pattern also features an aggressive design intended to increase the tires’ snow and water discharge capability. The “iceGUARD Stud iG55” features a newly developed shape for the studs and stud holes, with the new design optimizing tread thickness around the studs and stud hole allocation. The tire compound has been applied water absorbing technology with “iceGUARD” series studless tires. The compound also incorporates our proprietary Orange Oil, which enhances gripping power. The application of these technologies has significantly boosted the tires’ performance on ice and their ability to hold the studs.

The “iceGUARD” brand is Yokohama Rubber’s global winter tire brand. It is marketed in many countries in northern Europe, Russia, North America, and Asia.



Technical approach – Tread pattern

Wide spread Centre rib
 >Improve maneuverability and stability on ICE, SNOW, DRY surface with its improved centre tread stiffness .

Wide slanting grooves

Semi-radial grooves **Continuous lateral grooves**

>Improve SNOW, SLUSH and WATER evacuation from the tread.

>Improve lateral stabilities such as turning and anti-sliding.

Windmill shaped projection

Digging shaped shoulder
 >To maximize the edge effect, 3D shaped detail design has installed.
 >The projection around the stud hall also helps stud holding.

Optimum tread stiffness

Optimum stud hole allocation

3D-shaped Sipes

Micro Diagonal Grooves

Polyhedral 3D-sipes

Micro Diagonal Grooves

>Improve performance on ICE and SNOW surface with its maximized actual contact area under deflection and edge effect without losing block stiffness.

Windmill shaped projection

Digging shaped shoulder

Technical approach – Stud

New stud model **Stud hole allocation** **New stud hole shape**

Star-shaped stud chip & flange design improve edge effect. It improves performance on ICE and good stud retention.

>New stud model and optimum stud hole allocation helps improvement of ICE performance and less noise made with tread pattern and stud.

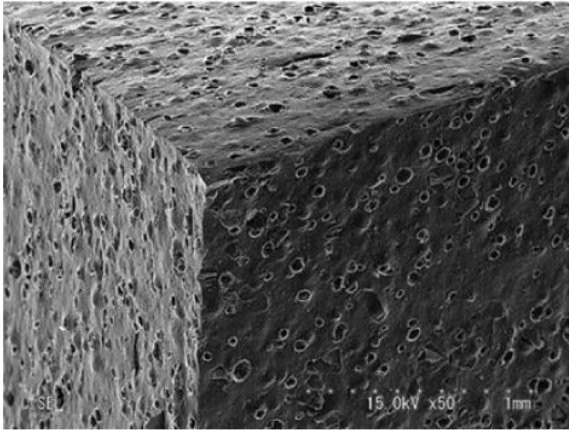
With conventional stud hole With new stud hole shape

>Installing the new stud hole shape makes less crevice at the stud hole and stud. And lifting the rate of thick tread contraction makes tread compound hold the stud tightly.

Technical approach—Compound

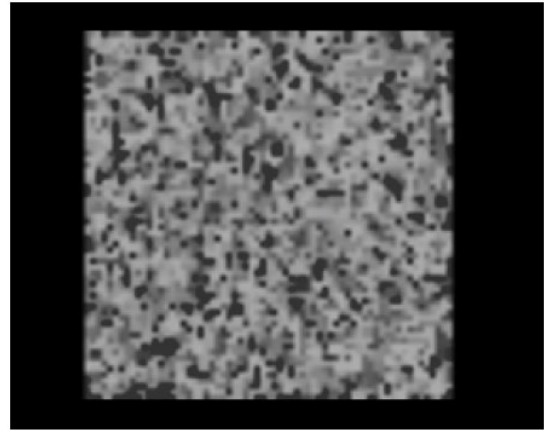
New mixing compound

Water absorbing compound



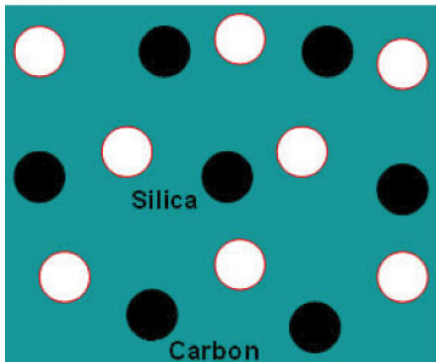
The original water absorbing compound technology same with IceGUARD studless tire Improves ICE performance.

High Density rich reinforce + Flexible Polymer



Delivering optimum tread stiffness. It stabilizes driving on DRY roads.

Silica



Silica improves performance on SNOW and WET

Orange Oil



>Make tire softer to get more contact surface on WET & DRY.
>Oranges Oil improves performances on WET & DRY.