Tires designed for use in severe snow conditions generally have tread patterns, structure, and materials to give superior performance in snow over tires meeting the USTMA Snow Tire Definition.

Tires designed for use in severe snow conditions are recognized by manufacturers to attain a snow grip index equal to or greater than the following values, based on specific Standard Reference Test Tires (SRTT), when using ASTM F1805-18 snow traction test with medium packed snow surface and equivalent percentage loads. Other test methods and reference tires developed by standardizing bodies may be used provided proper correlations are demonstrated.

- SRTT14 ASTM E1136 P195/75R14 - Minimum Snow Grip Index of 1.10
- SRTT16 ASTM F2493 P225/60R16 - Minimum Snow Grip Index of 1.12

Tires designed for use in severe snow conditions that meet the performance criteria above qualify for marking on at least one sidewall with the letters “M” and “S” (e.g., MS, M/S, M&S, M+S, etc.) plus a pictograph of a mountain with a snowflake. The mountain profile shall have a minimum base of 15 mm and a minimum height of 15 mm and shall contain three peaks with the middle peak being the tallest. Inside the mountain there shall be a six-sided snowflake having a minimum height of one-half the tallest peak. An example of the mountain/snowflake is shown below.

1 Tires with LT in the size designation
2 For the USTMA Snow Tire Definition, refer to TISB Vol. 10, "USTMA Snow Tire Definition for Passenger and Light Truck Tires"
3 Using a test load equal to 74% of the test inflation rated load for candidate test tires. The test load for SRTT16 is specified as 1171 lbs.
4 Some Regulations and Standards refer to a Traction Index which is expressed as the Snow Grip Index x 100.