

CONTACTS:

MICHAEL WHITE

248.945.4779 / mwhite@steel.org

GARY MASON

248.945.4763 / gmason@steel.org

The Bumper Group

The Bumper Group – a team consisting of North American steel producers, bumper manufacturers and representatives from automotive manufacturers – is dedicated to keeping steel the material of choice for bumper applications. A subcommittee of the Steel Market Development Institute’s Automotive Applications Council, the Bumper Group accomplishes this by: addressing technological challenges; sharing information related to the bumper manufacturing process, steel grades and regulations; solving problems associated with steel bumper development; and completing research and development projects which address new design challenges for bumpers, to make them more cost- and mass-efficient.

The Bumpers Group members include:

- AGS Automotive Systems
- AK Steel Corporation
- Algoma
- ArcelorMittal
- Benteler Automotive
- FCA US LLC
- Cosma International
- Flat Rock Metal, Inc.
- Flex-N-Gate
- Ford Motor Company
- General Motors Company
- Multimatic Inc.
- Nucor Corporation
- Shape Corporation

For more information, visit www.autosteel.org.

Types of steel bumpers:

- **Roll-formed bumpers:** With more than 70 percent of the steel bumper market in North America, roll-formed bumpers are typically manufactured from cold-rolled uncoated ultra high-strength steel (UHSS) with a tensile range of 860 to 1500 Megapascal (MPa) and a thickness range of 1.1 to 2.0 mm. The most common UHSS grades used for roll-formed bumpers include recovery annealed, dual phase 980 and martensitic steel.
- **Hot-stamped bumpers:** With nearly 10 percent of the steel bumper market in North America, hot-stamped bumpers can be manufactured from either aluminized or uncoated MnB steel with a minimum tensile strength of 1500 MPa after hot stamping. Both hot-rolled and cold-rolled MnB steels are used for hot-stamped bumpers with a thickness range of 1.0 to 4.0 mm.

- MORE -

The Bumpers Group Fact Sheet – p. 2

- Hybrid bumpers: Bumpers using ACCRA® technology or similar combines features of hot-stamped and roll-formed bumpers.
- Facebars: Most commonly used on light-, medium- and heavy-duty trucks; facebars include nearly 20 percent of the steel bumper market and have an internal supporting structure. Facebars are typically stamped from mild- or high-strength low-alloy steels with tensile strengths up to 500 MPa and a thickness range of 1.6 to 2.3 mm. Since facebars are exposed, cold-rolled steel is typically used to improve surface quality and coating appearance. Facebars are polished either in sheet form prior to or after stamping and then chromed or painted on the exposed surfaces, depending on customer preference.

Steel bumpers:

- Made up more than 50 percent of the automotive bumpers that were on the 20.7 million vehicles sold in North America in 2017;
- Comply with existing, future-low and high-speed crash requirements;
- With advanced steel grades and advanced manufacturing processes, assist carmakers meet future safety requirements, while reducing mass to help meet environmental demands without adding to cost;
- Feature fully integrated trim and optimized designs, which offer significant benefits, such as fuel efficiency, cost savings and durability;
- Are more affordable than bumpers made of alternative materials; and
- Include the world's most recycled material – steel.

#