	Gauge	Elongation	Yield stress	Metallic coating	H grain/C grain cut
Axial resistance	■		■		■
Panelling resistance	■				
Denting resistance	■		■		
High speed welding		■		■	
Flanging	■	■	■		■

Steel for three-piece bodies

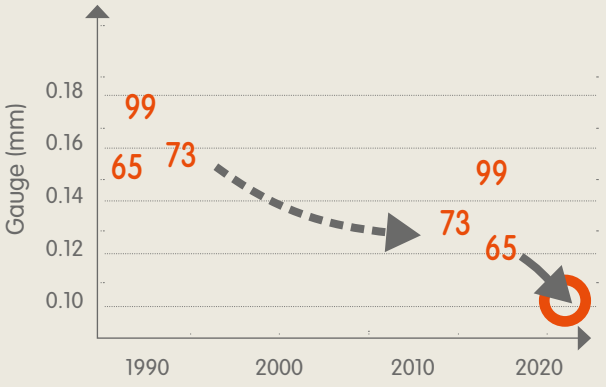
Three-piece (3P) bodies made by electrical welding have experienced outstanding lightweighting in the past. Critical end-use properties are axial resistance for safe palletising, panelling resistance to withstand retorting pressure constraints, and denting resistance. The capacity to ensure efficient production is related to high-speed welding and flanging performance. The next frontier is 0.100 mm: the new proposal for metal cost-saving dedicated to small diameter cans or to any cans being processed in mild conditions.

Some examples of key factors to be considered are:

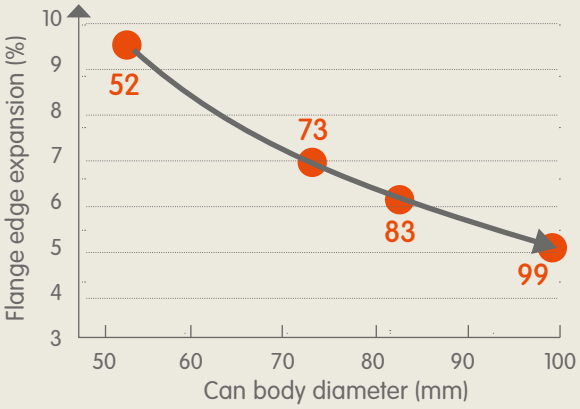
- Diameter of the can and flanging technique (die/spin). Minimum metal elongation is required.
- Slitting of the metal blank along or transversely to the metal rolling direction, so-called H grain or C grain. This choice determines the metal properties at the edges of the strip.
- The metal surface properties, for example the free-tin quantity, to ensure a safe welding window whatever the welding speed (> 100 m/min).
- The expected panelling performance and axial resistance of the finished can, which are influenced by the metal yield stress.

To meet the requirements of various can sizes and can-making processes, ArcelorMittal offers a range of products with gauges down to 0.100 mm. Bestsellers are TH480/520/550 for classic formats, 73-83-99 mm. The most demanding cases, such as cans made from thin gauges down to 0.120 mm, are preferably made from TS480/520/550. The thinnest product (0.100 mm) is made using an innovative TS520 solution.

One can size, one path for lightweighting



Flanging strain is related to can diameter



Product offer for three-piece cans