



Copper Demand on Track to Grow in Auto Wire Harness

Study Name: Automotive Wire Harness Assessment
Study Author: Martec Group
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Copper use in automotive wire harness will continue to grow according to new research commissioned by the International Copper Association (ICA). The research, conducted by Martec Group, found that the average weight of copper use per vehicle in automotive wire harnesses increased from 11.0 kg in 2016 to 12.6 kg in 2019.

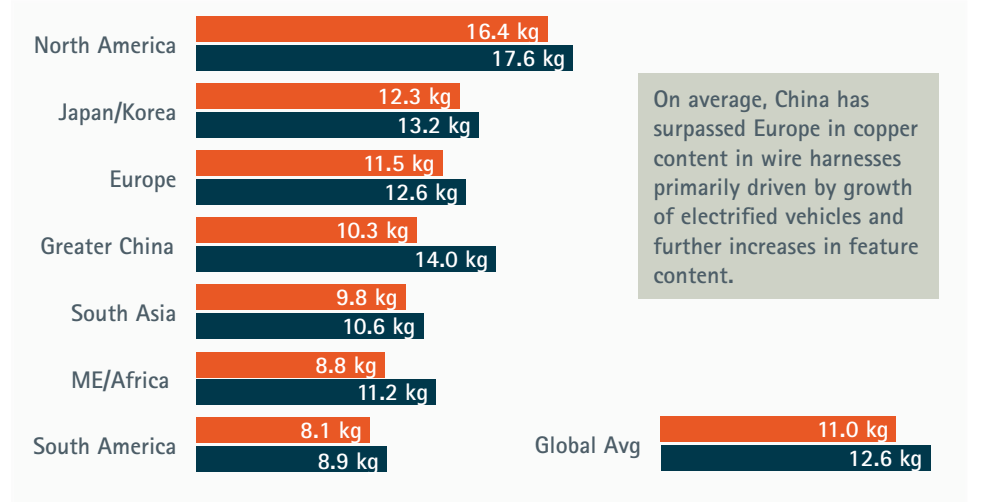
Increase in copper weight used in vehicle wire harnesses

Global average copper weight per vehicle has gone up from 11.0 kg to 12.6 kg from 2016 to 2019, an overall growth of 9.4%

- Driven primarily by electrification implementation and larger vehicles, such as pickup trucks, SUVs, and full-sized vans
- Developing countries/regions (China, South Asia, South America) have seen the most growth in copper demand... and this will likely continue to be the trend

Increased Average Copper Weight per Vehicle by Region

Driven by growth in developing regions (South America, China, and ME/Africa), the growth in penetration of electrified vehicles, and increased features per vehicle.

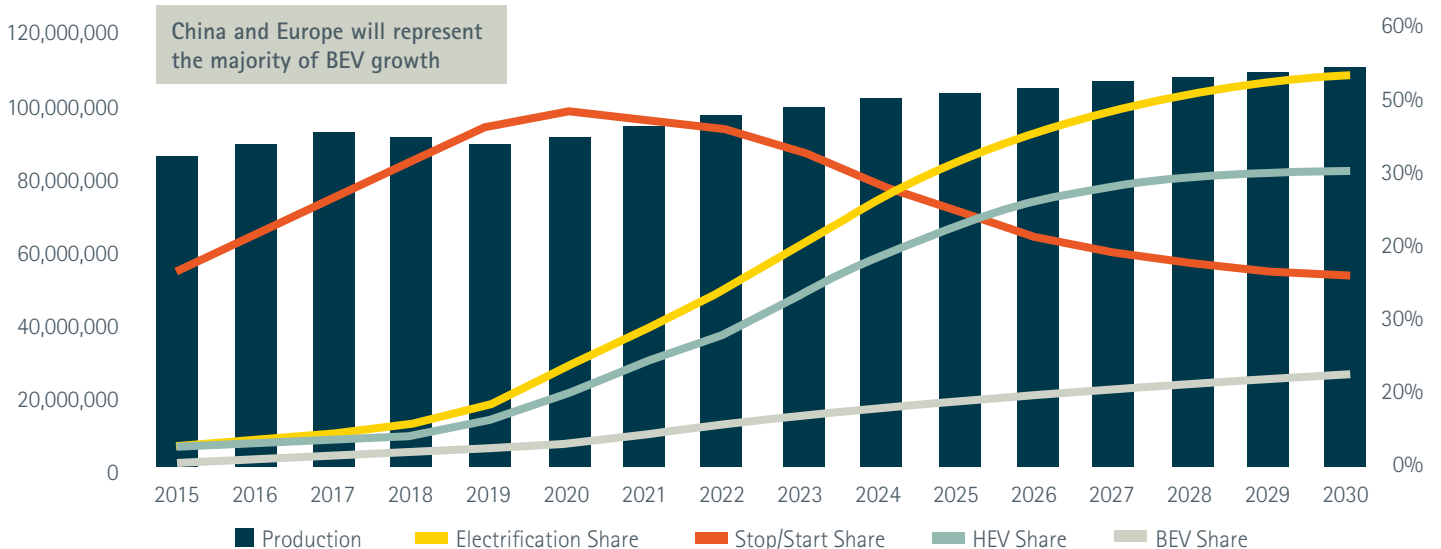


Demand for copper in wire harnesses will be led by continued vehicle electrification

By 2030, there will be an additional 300,000 metric tons of copper in wire harnesses each year (and growing) due to vehicle electrification technologies (hybrids, battery EVs, 48V, start/stop systems, etc.)

- The new features, systems and controls that come with self-driving vehicles will require copper, as they are primarily high voltage applications
- Self-driving vehicles are expected to be on the road in volume by 2030

Global Vehicle Production by Electrification Technology



In the medium term, hybrid vehicles will add the most copper, while battery EVs will require more copper in the longer term (closer to 2030 and beyond).

- Short-term is driven by start/stop technology, which will fade in the next 5-10 years

Added Copper Usage by New Technology (in metric tons)

Mild Hybrid and Battery Electric Vehicles will add the most copper weight over the coming 10 years

