

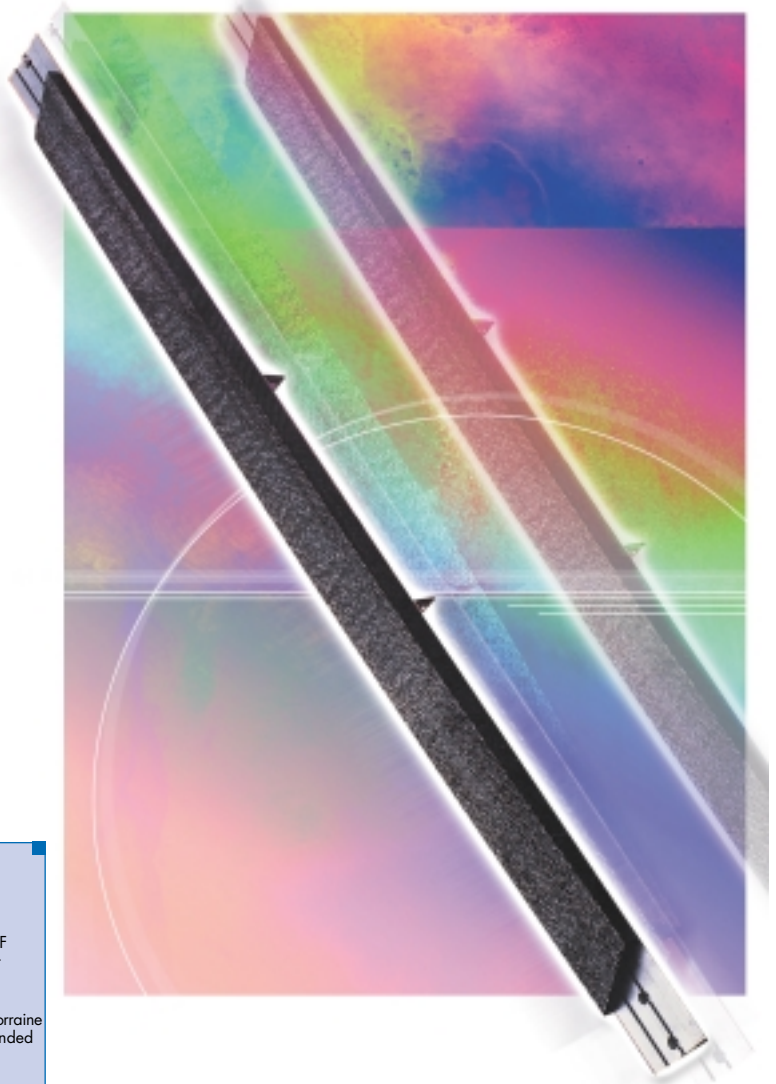


Pantograph strip in composite material for high intensity current collection

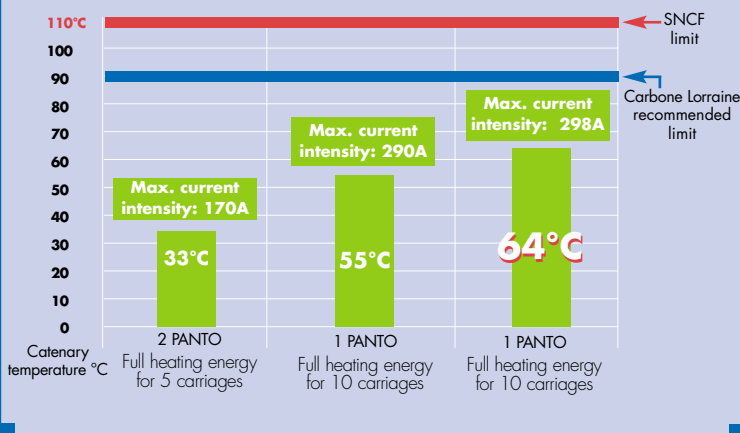
Carbon/Carbon composite material
arrives for current collection!

Its lightness combined with its excellent thermal
reduction capacity makes it the future and
ideal material to meet the most severe
specifications.

- Resists to a linear current $> 300 \text{ A/cm}^2$
- Lifetime $> 100,000 \text{ km}$ on the catenary in contact with the carbon strips
- Important savings on catenary maintenance costs
- Allows current collection whilst the train is stationary with a catenary temperature $< 90^\circ\text{C}$ and 300 A current distributed across two strips



Example of results achieved on TGV-Atlantique train
Stress 120 N – 1 catenary 107 mm²



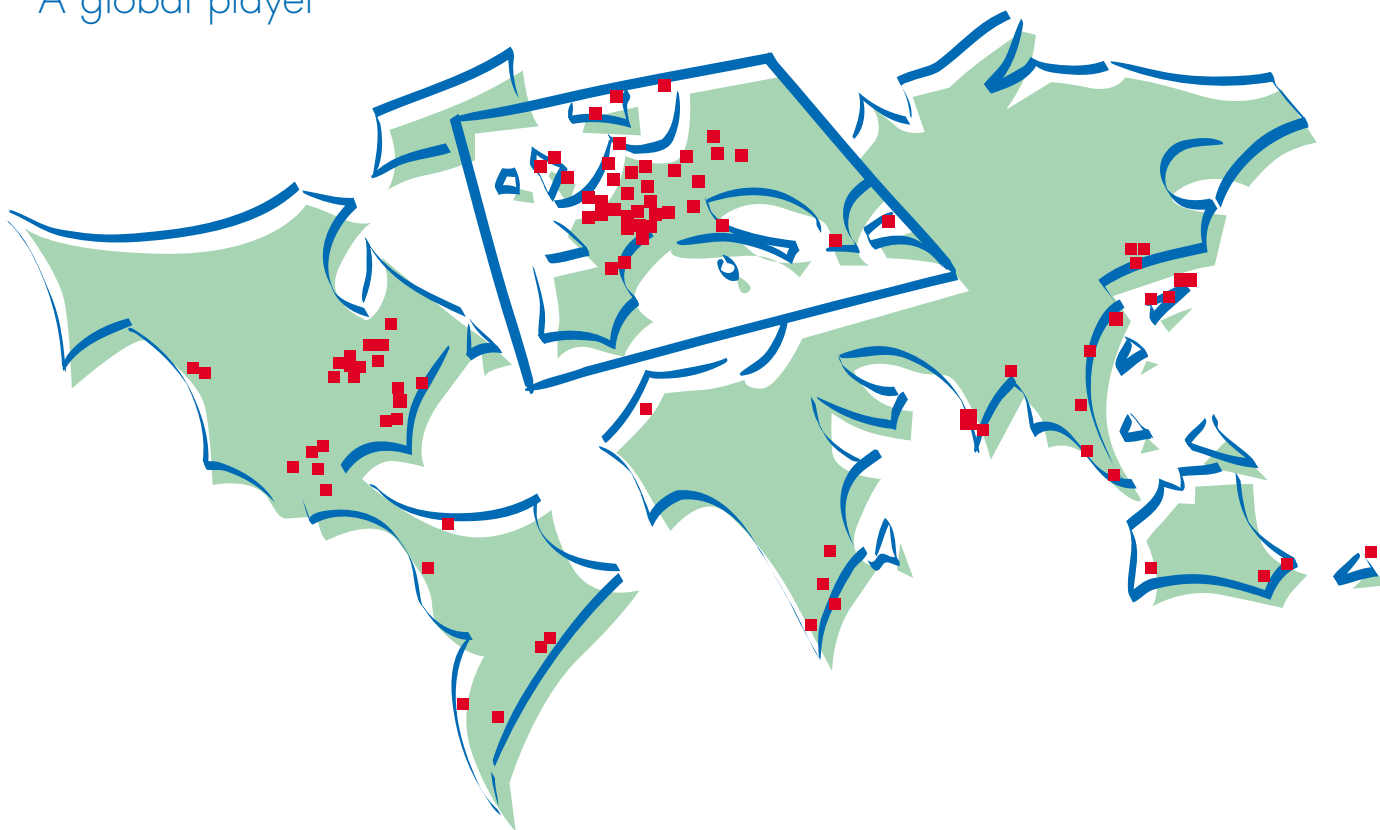
*Benefit from our experience
to reduce your costs*

A WORLD LEADER in the field of brushes for electric motors

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than 70 countries and 250 commercial contacts throughout the world, CARBONE LORRAINE offers its customers everywhere reliable high technology products and the service of its experienced technicians.

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