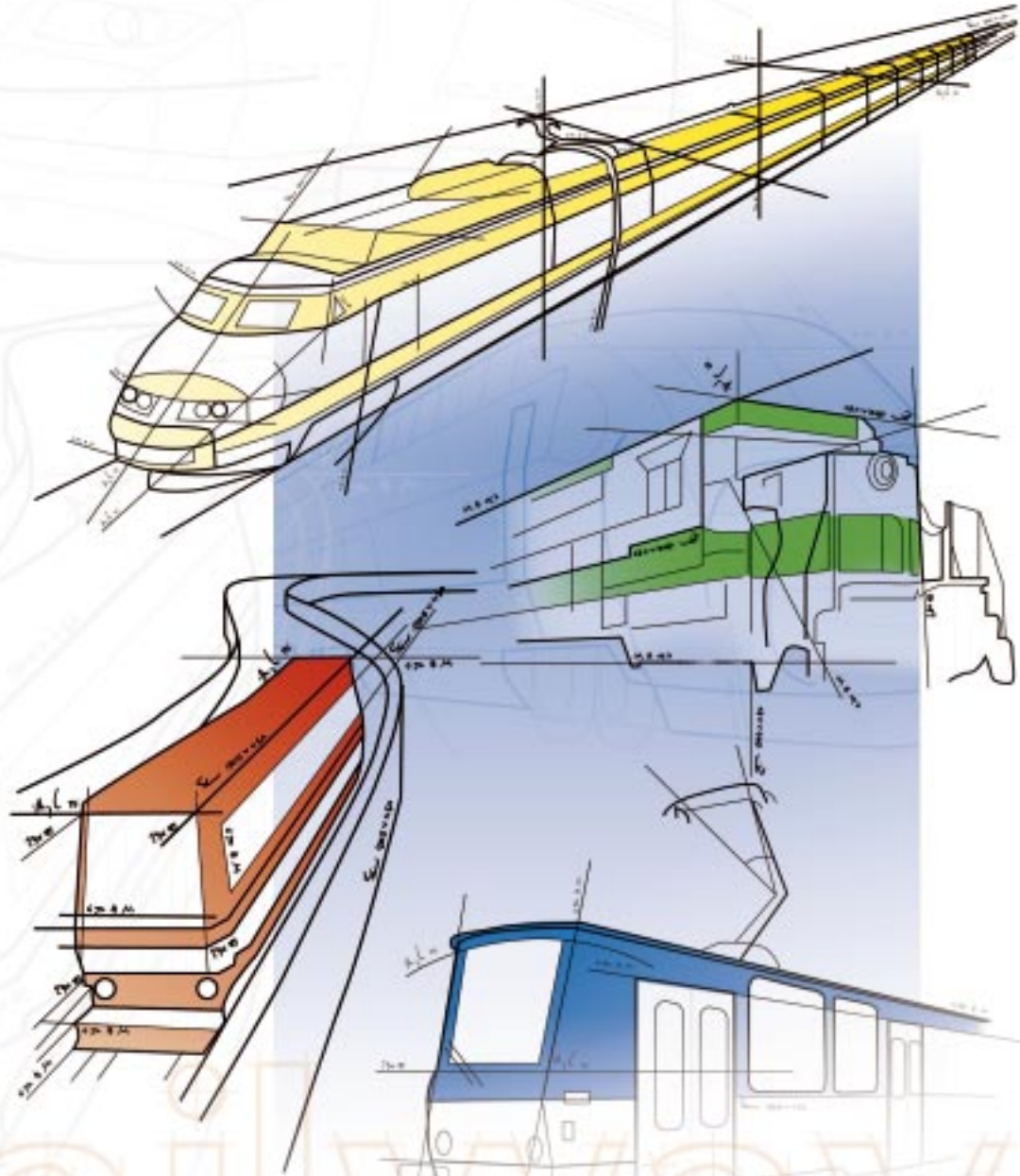


ISO 9001

# High performance carbon brush grades for railway applications



*The results of continuous  
Research and Development*

# CARBONE LORRAINE

your PARTNER



## Benefit from our experience to reduce your costs

We are an innovative company committed to supporting the railroad and transit industries.  
We are proud to be a major player in railway system field.



## Development

We are continuously developing advanced material products. Carbon brushes for railway systems have gone through major changes over the years. Carbon brushes used today are more technologically advanced and reliable and bring a contribution to improving the low cost cycle (L.C.C.) This is the result of continuous research and development efforts with innovative thinking.



## Production

We produce our semi-products materials under certification ISO9001.



## Manufacture

We warrant safe delivery with high volume production facilities for the production of carbon brushes in Amiens (France) and Toronto (Canada).  
We also have local workshops, which, worldwide, can supply you with products manufactured to your own requirements with the same level of quality and service.

## Distribution

Your carbon brushes are delivered within the shortest time.  
You benefit from our experience of the distribution of products all over the world.



## Maintenance provider

Phone technical assistance  
Technical documentation in line:  
[www.elec.carbonelorraine.com](http://www.elec.carbonelorraine.com)

Training session: STAGELEC/EXTELEC for Maintenance of electrical machines and commutation.  
Motor expertise on site.  
Servicing and rectification of commutators on site.

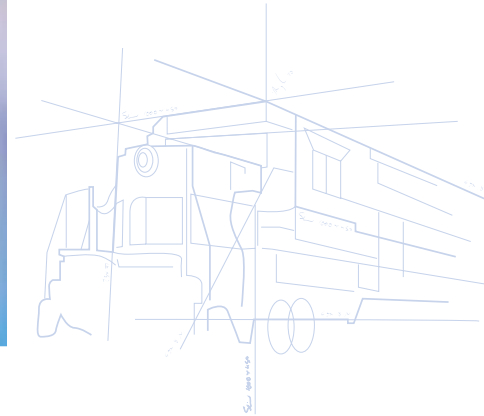
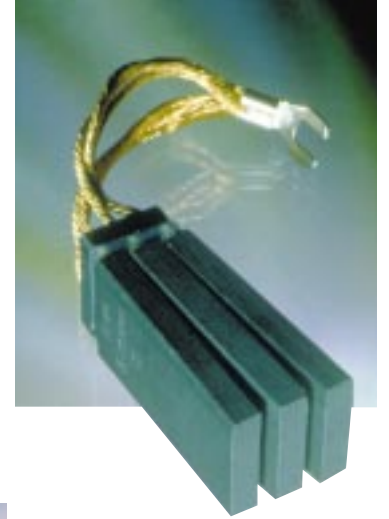
## Our grades

Well adapted to:

- Traction motors
- Generators
- Alternators
- Auxiliaries

Whatever the application:

- Electrical locomotives
- Diesel locomotives
- Suburban System
- Metro
- Tramways and Trolley bus



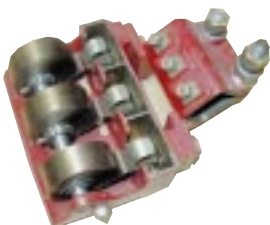
Density	Resistivity $\mu\Omega\cdot\text{cm}$	Flexural strength MPa	Shore hardness	Current density admissible A/cm <sup>2</sup>	Peripheral speed m/s
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### Grades for diesel electric locomotives

AC137	1.72	5100	41	80	12.5	50
EG8220	1.82	5400	48	90	12.0	50
EG7097	1.64	3900	37	65	12.0	50
EG6754	1.76	4150	40	87	12.0	50
AC155	1.72	5100	34	62	12.5	50

### Grades for electrical and transit traction

2189	1.63	5800	34	60	12.5	45
EG7097	1.64	3900	37	65	12.0	50
EG8220	1.82	5400	48	90	12.0	50
EG9599	1.60	1600	28	33	12.0	50
AC137	1.72	5100	41	80	12.5	50



## Brush-holders

We are also active in developing brush-holders for traction motors and generators for which we provide you with expertise, servicing, adjusting and refurbishing.

## Other documentations

- Brush-holders for Traction motors and generators
- Replacement and Maintenance of Industrial and Traction brush-holders.

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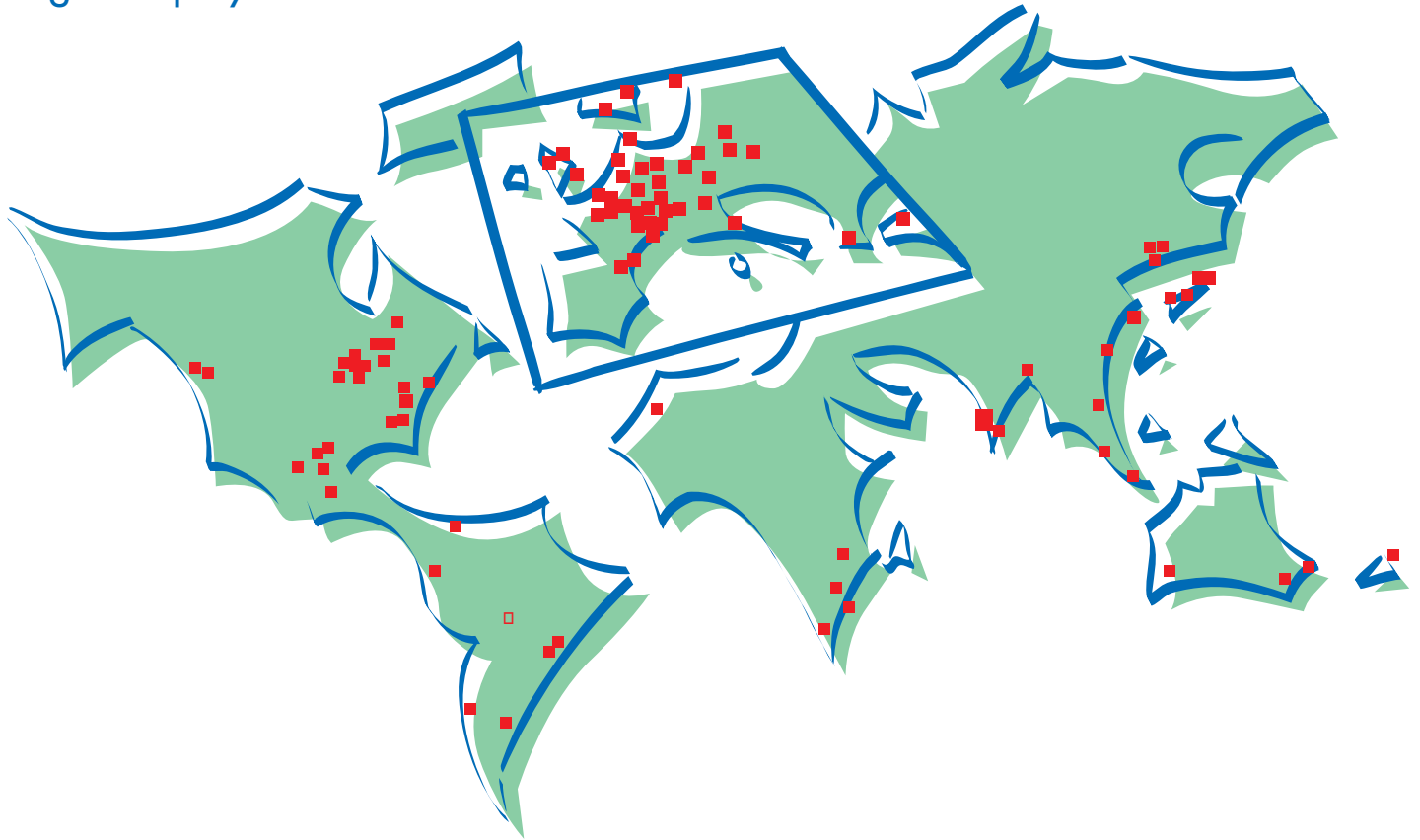
## A WORL LEADER in the field of brushes for electric motors

Since its foundation in 1892, CARBONE LORRAINE has built up an international reputation by creating subsidiaries on all continents.

Today with industrial and commercial plants scattered in more than 30 countries, agencies and representatives

in more 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.

## A global player



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