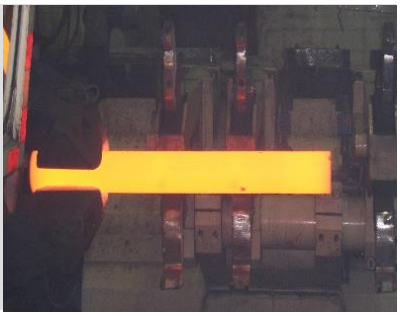
_THERMAL SPRAY

o-MET
Corrosion and Oxidation Protection



Purpose of Coatings

Protection of components in different atmospheres from corrosion and oxidation

Applications

- Zinc, Aluminium:
  Steel construction, automotive engineering, shipbuilding, manufacture of reservoirs, tanks, containers and housings
- Nickel and Alloys:
  Mechanical engineering, plant and apparatus construction, chemical and paper industry, power plant technology
- Chrome-Aluminium:
  Burner parts, high-temperature reactors
- MCrAlY:
  Gas and steam turbine parts, burner parts, exhaust manifolds, kiln roller, bond coat for TBC
- Steel:
  Temporary protection against oxidation during hot forging and massive forming

Our Service Offering

- Consultancy service, design improvements, selection of coating materials and technologies
- Production of test samples and prototypes including fixture construction
- Development of specifications for serial coating processes
- Pre-treatment and coating of customer parts, post-treatment respectively finish-machining
- Measuring, inspection, testing, packaging according pre-agreed specifications

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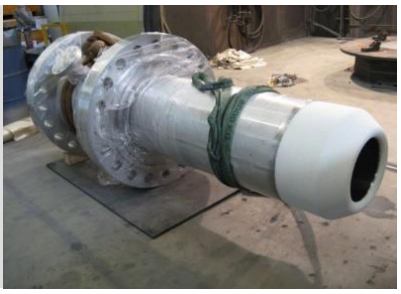

Technologies

- Powder flame spraying, Wire flame spraying, Arc and Plasma spraying, HVOF, Cold gas spraying
- For coating of NiCrBSi: partially fusing after coating

Coating Materials

- Zn, ZnAl15:
  Alternative to hot-galvanizing – small heat input; also as duplex coating (lacquer top coating); working temperature max. 250 / 300 °C; especially against alkaline conditions
- Al, AlMg5:
  In dry atmosphere up to 600°C; in acid conditions; AlMg5 for use in seawater; long-life cycle due to duplex coating
- Ni, NiCr, NiAl:
  Repair and bond coatings with good oxidation and corrosion resistance
- NiCrBSi:
  Also with carbides or additional alloying elements; very high density, hardness, corrosion and wear resistance; HVOF or Flame spraying + fusing
- CrAl:
  Protection against sulphur impact and carburization
- NiCrAlY, NiCoCrAlY, CoCrAlY and similar:
  Bond and intermediate coating; against oxidation, sulphur and hot corrosion; operating temperatures < 1050 °C
- FeCr:
  Fe alloys with varying Cr content; especially for repair and wear protection – limited corrosion protection; operating temperature < 500 °C, for temporary oxidation protection even higher (e.g. hot forming)

Who we are

With more than 100 years of experience, GfE is one of the world's leading manufacturers and suppliers of high-performance metals and materials. Based on our comprehensive materials science know-how, we develop high-quality tailor-made solutions for a wide range of industrial applications. We offer our customers fast service and qualified technical advice.

Certification in accordance with DIN EN ISO 9001, DIN EN ISO 14001, DIN EN ISO 50001, DIN ISO 45001 and DIN EN ISO/IEC 17025 support our claim to the highest quality and safety. We can thus guarantee products that meet the specific requirements of our customers. Your trust and satisfaction are the cornerstone of our business.

GfE is a subsidiary of AMG Advanced Metallurgical Group N.V., Netherlands, a global leader in the production of specialty metals and metallurgical vacuum furnace systems.

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