

_THERMAL SPRAY

e-CER® Coatings for High Infrared Emission

Purpose of Coatings

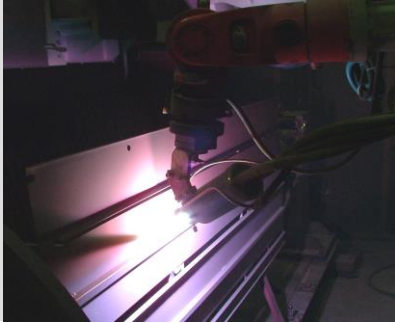
- Increase of infrared emissivity of surfaces
- Improvement in efficiency of thermal processes

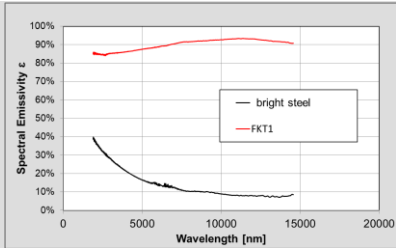
Applications

- Baking ovens
- Food drying plants
- Paint drying
- Hot shaping of thermoplastic parts
- Hardening, heat treatment of materials
- Heating
- Cooling in vacuum systems

Features

- Technologies: Plasma spraying
- Coating materials: Oxid ceramic components in specific composition
- Base bodies: Sheets, tubes, other components made of steel, stainless steel, Al, Cu and other metals
Glass and ceramic tubes, halogen lamp emitter, concrete, plastics, FRP
- Working temperature on steel: up to approx. 700 °C
- Coating thickness: 0.01...0.1 mm
- Emissivity ϵ
surface e-CER®: 0.85 ... 0.92
(uncoated stainless steel: 0.1 ... 0.4)
- High Emissivity in the infrared range – above all for $\lambda = 2...14 \mu\text{m}$





Benefits of e-CER®

- Reduction of baking or processing times
- Saving of energy
- Reduction of operational cost
- Chemically inert and food safe
- High mechanical stability and wear resistance

Our Service Offering

- Coating of sample and prototype parts, including fixture construction
- Advisory service, design optimization, development of specifications for serial technologies
- Serial production
- Quality control
- Coating of parts with different shapes and materials
- Length, width respectively diameter of base body: up to several meters (exact dimensions depends on shape – please request)
- Provision of base material by customer or complete production by GfE (including production of base bodies)
- Certificate of Compliance for bakery oven applications



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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