

Solutions Flash

High quality aluminum and zinc wires result in reliable thermal spray processing and coating results

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Today's situation

Aluminum and zinc wires have many uses, only some of which is for combustion wire and electric arc wire thermal spray processes. Many of these other commercial and industrial needs do not require the stringent quality control necessary for thermal spray.

For thermal spray processes, wire quality has a two-fold effect. First, to ensure reliable spray processing and longevity of wire feed and gun components, it is important that the wire

be of high quality and held to stringent dimensional controls. Therefore, wires that are not designed specifically for thermal spray processes may increase those costs associated with system maintenance and downtime. Second, for thermal spray coatings to meet their intended service requirements, the chemistry of the wire material must also be tightly controlled. If it is not, the thermal spray coatings may not meet the intended service targets.

The Oerlikon Metco solution

Our many years of experience as well as the thousands of tons of zinc and aluminum wire we have supplied for corrosion applications has given us the know-how and confidence to provide our customers with the best qualified wires available. By choosing materials from Oerlikon Metco, our customers are assured that the material supplied meets the most stringent thermal spray requirements; thus ensuring excellent reliability and lot-to-lot consistency.

Furthermore, as a leading developer and manufacturer of thermal spray equipment, our customers know they can rely on our professional expertise with support for every aspect of the thermal spray process.

Solution description and validation

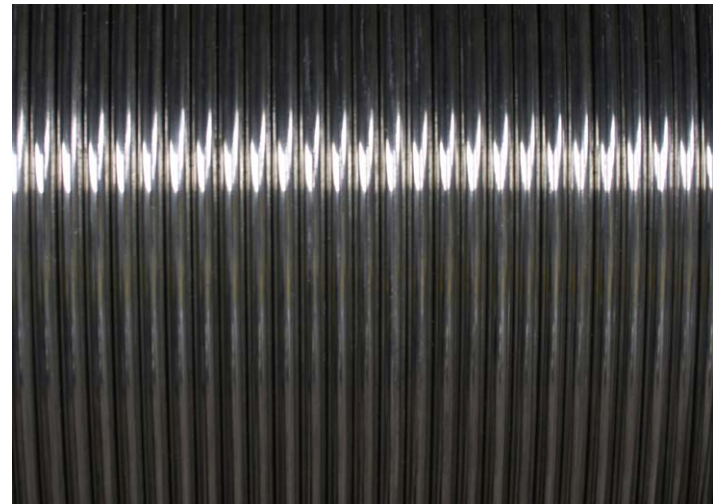
Quality control

Oerlikon Metco's highly demanding specifications for aluminum and zinc thermal spray wire includes tightly controlled requirements for dimensional tolerance, wire surface condition, chemistry and coiling characteristics.

Thermal Spray wires supplied by Oerlikon Metco have precisely defined tolerances for wire diameter and roundness. In addition, wires are qualified to have smooth surface finishes, without surface blemishes and free of contaminants such as scale or grease. Wires are coated with suitable lubricants and spools are lay-wound. This all combines to assure smooth wire feed during the spray process and longevity of spray gun components; minimizing downtime and thermal spray equipment failures.

Tight chemistry compositions ensure that our zinc and aluminum wires will produce coatings that provide maximum corrosion protection in service.

We perform quality control inspections for physical characteristics (dimensional size, labeling, packaging, surface finish, etc.) on every lot of material. We review and verify test reports from our material suppliers and we perform periodic chemistry over-checks for accuracy and compliance.



Oerlikon Metco wires supplied on spools are 'lay-wound', ensuring smooth wire feed.

Quality certifications

Oerlikon Metco's quality system certifications:

- ISO 9001:2000
- ISO 14.919 (European Norm for Thermal Spraying)
- Nadcap AS703 for material testing
- GE S-400
- PWA LCS
- Safran Group

World class logistics and support

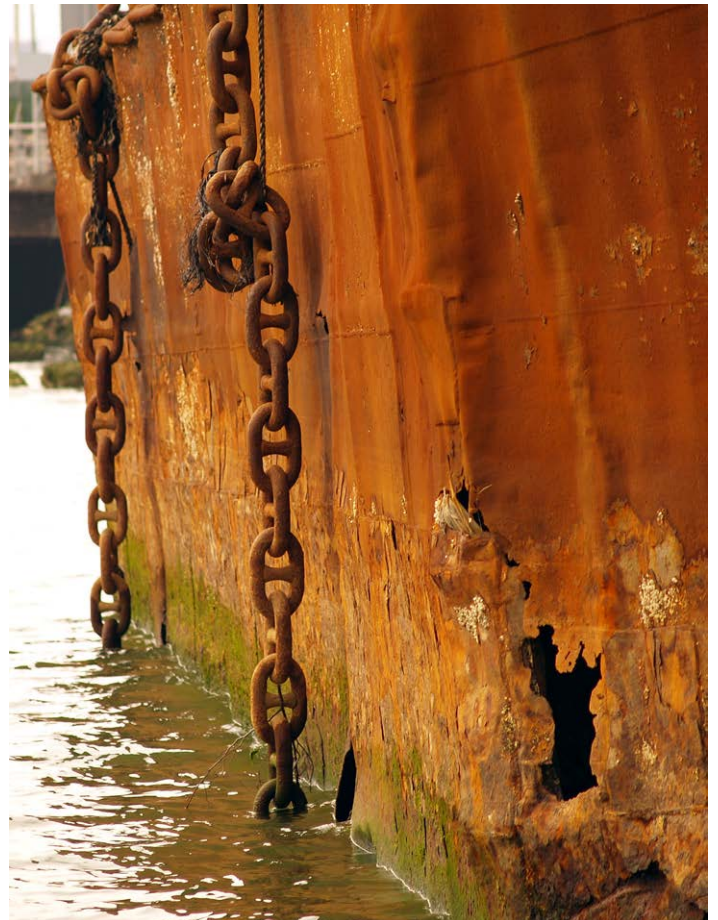
Oerlikon Metco long-term presence in the thermal spray market and commitment to our customers is well known. Our worldwide network of sales offices and hand-picked distributors is our customer's gateway for all commercial and technical support. Our world-class distribution allows us to ship product to our customers as fast as possible.

Not only has Oerlikon Metco proven ourselves to be a strong supplier to thousands of customers, but we also have strong and long-term sources of supply, guaranteeing our customers product availability and top quality.

When appropriate, material is packaged for overseas shipment. In addition, we offer:

- A wide range of packaging options for zinc and aluminum wires, including a variety of spool types, coils and drums.
- Literally dozens of standard zinc and aluminum products that can be shipped to customers quickly.
- Special spool packages on a custom order basis, to meet specific customer requirements.
- 500 lb production packs of zinc wire that is both cost effective and provides additional savings by reducing coil change-out time on large spray runs.
- Flexibility of order quantities, whether large or small.

Your surface application is our challenge. Contact us for professional advise on both standard and non-standard material requirements. We are available to help you develop a solution that meets your individual needs.



Corrosion is one of the most costly and challenging environmental issues facing industry. Oerlikon Metco thermal spray solutions offer excellent defense against corrosive environments.

Customer Benefits

Efficient

- Global sales and logistics efficiently handle commercial ordering aspects, technical support and ensure timely product delivery.
- Long-term vendor relationships ensure supply of product.
- Availability of many standard products in different packaging types and wire diameters allows our customers to order to their needs.
- Supply of special packaging requirements to meet specific customer requirements.

Effective

- Oerlikon Metco wires are well-known in corrosion applications for long-lasting service.
- The highest control standards for excellent product quality, reliability and lot-to-lot consistency.

Economical

- Quality standards specifically for thermal spray reduce equipment maintenance costs and increase uptime.
- Availability of production packs are cost effective and reduce change-out time during long spray runs.
- Orders accepted for large and small quantities.