Lehigh Valley’s premiere source for long-lasting protective coatings

Thermal spray coatings from

For a free consultation, call us today at 610-871-1427.
Whether you are applying a precision coating to an existing part or building a complete coated component, we’ll be pleased to discuss your application and recommend the thermal spray coating and process that best meets your needs efficiently and cost effectively.

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Web: www.longevitycoatings.com
A wide range of capabilities to meet a wide range of challenges

As our name suggests, we are specialists in the spray coating of metal, carbide and ceramic protective coatings for industrial applications. Our experienced staff of design and engineering professionals has played a leadership role in the development of new coatings materials and processes to meet the growing demand for protective coatings. By maintaining quality and providing innovative solutions, Longevity's thermal spray coatings have enabled our clientele to increase component life and improve reliability while reducing downtime and cost.

LARGE HANDLING CAPACITY

Whether your project calls for a small wear part or a large component, a limited production run or a large run, Longevity Coatings can handle the assignment. Our largest coating handling system can swing parts in excess of 18’ at a diameter of 50’’. Our current weight capacity is 15,000 lbs and is serviced by contiguous overhead cranes. In addition, our multiple, medium and small, specialized coating handling systems can accommodate high volume parts processing. Multi-axis computer-directed motion control systems as well as mechanical multi-spindle setups provide the handling apparatus for processing shafts, sleeves, hubs, balls, and numerous other coating applications.

ANCILLARY SERVICES

In our diamond grinding, honing and lapping shop, we readily meet your most demanding specifications for size and surface finishes:
- Carbides ground and lapped to an extremely smooth 1 Ra surface finish
- Plasma sprayed ceramics ground and lapped to a very fine 4Ra surface finish
- Diameter tolerance to .0001’’ (.0025mm)
- Solid carbide and ceramic parts

Thermal spray coatings: what are they and why use them?

Thermal spray coating is a collective term that embraces a group of coating processes. In thermal spray coatings, micron size metallic or nonmetallic surface materials are deposited in a molten or semi-molten condition on a prepared substrate. The resulting coating imparts desired surface properties to the substrate while maintaining the substrates unique properties. For example, wear rings made from light, strong Chemical resistant Titanium can be coated with hard, wear resistant Tungsten Carbide.

Uses and Benefits

Improve Properties Some coatings are used to confer certain properties which the substrate lacks but are necessary for an industrial operation: for example, conductivity, electrical isolation, traction and release.

Improve Part Performance and Lengthen Component Life

The application of a thermal spray coating can reduce erosion, corrosion or abrasion to a substrate, thereby reducing the costs of replacing expensive base materials.

Restoration of Failing Parts

Worn and corroded parts, which would otherwise be scrapped, can often be reclaimed using thermal spray coatings. The part can be brought back to specification again and again yielding considerable savings over time.

Chrome Plate Replacement

Since the government has nearly forbidden the use of hexavalent Chrome, a dangerous chemical used in the chrome plating process, users of chrome plate have been forced to find a replacement. Not only have flame spray coatings been found to be an effective alternative, they are also safe and environmentally friendly because the process produces a less over powder that is not generally soluble and is easy to recycle.

Reduced downtime and costs, improved productivity

THERMAL SPRAY COATINGS: THE COATING MATERIALS

At Longevity Coatings, our state-of-the-art equipment and in-depth experience enable us to apply exotic materials to your component, allowing you to benefit from their unique properties.

CARBIDES: WC-Co • WC-Ni • WC-Ni-CR • WC-NI-CR-MO • CRC-NI-CR • CRC-WC-NI-CR-MO • And many more

CERAMICS (OXIDES): Chromium oxide • Aluminum oxide • Yttrium oxide • Titanium dioxide • Stabilized zirconia • And many more

METALS: Super alloys • Austenitic stainless • Refractory metals • Copper • Bronze • White metals • And many more

PLASMA COATINGS (NON-TRANSFERRED ARC)

In the non-transferred arc process employed by Longevity, an arc is established between the electrode and the constraining nozzle. The non-transferred arc is then utilized as the source of dissociation, which ionizes a gas stream, melting, and propelling the coating material to the work piece. Longevity Plasma is the coating process of choice for applying high melting point ceramics and refractory metals.

TWIN WIRE ARC AND COMBUSTION FLAME SPRAYING.

This is a time-tested method that is favored for chrome plate replacement, heavy build-up, salvage/repair and many other industrial applications.

FUSED COATINGS

In this process, metal or metal/carbide hybrids are “wetted” to the base metal. Fused coatings have a metallurgical bond and are characterized by extreme toughness and impact resistance.
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