TST ENGINEERED COATING SOLUTIONS
A DIVISION OF FISHER BARTON

TST-163 Coating

Fully Metallurgically Bonded FeCrCBSi Alloy

TST Engineered Coating Solutions® developed the 163 coating and application process as a solution to extend the life of parts/components in extreme wear environments. This fully metallurgically bonded FeCrCBSi alloy is designed for high-performance applications and is known for its exceptional hardness and low porosity, making it an ideal choice for highly abrasive environments.

Features

- High Hardness: The coating achieves a hardness of 926 HV200g (67 HRC), providing excellent wear resistance.
- Low Porosity: With a porosity less than 0.5%, the coating ensures minimal permeability, enhancing its durability and performance.
- Superior Abrasive Wear Resistance: The coating demonstrates outstanding performance in ASTM G65 abrasive wear tests, showing significantly lower mass loss compared to other coatings.

Better Wear Resistance Than:

- Ni-based alloys containing Ni, Cr, Si, Brc, (examples Colmonoy 62, 69, fb)
- Ni-based alloys that contain tungsten (examples Colmonoy 72, 88)

Benefits

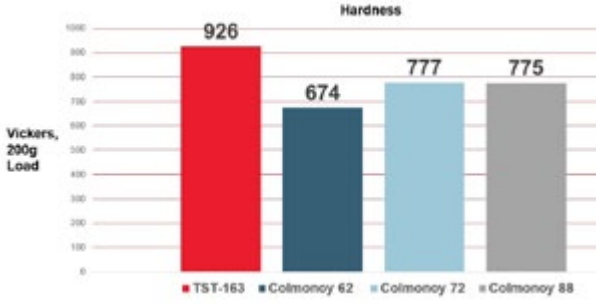
Enhanced Durability: The high hardness and low porosity contribute to the coating's ability to withstand harsh conditions, reducing the frequency of maintenance and replacements.

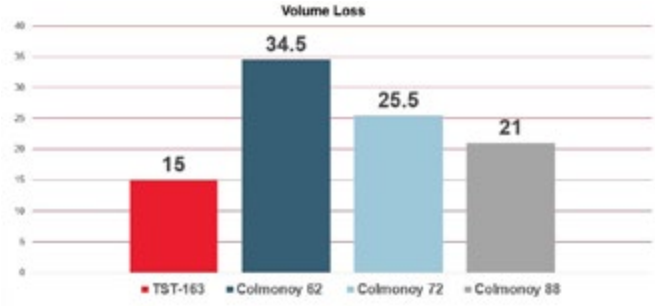
Cost-Effective: The superior wear resistance and durability translate to lower operational costs over time, providing excellent value for money.

Improved Performance: The coating's ability to maintain its integrity under extreme conditions ensures consistent performance, which is critical in the chemical, oil, and gas industry.

Better Value: Extended component life provides better value.

ASTM G65 PROCEDURE A





Extreme Environments

Resistance to Harsh Environments: The chemical, oil and gas industry often involves exposure to abrasive materials and extreme conditions. The TST-163 Coating's high hardness and low porosity make it well-suited to these environments.

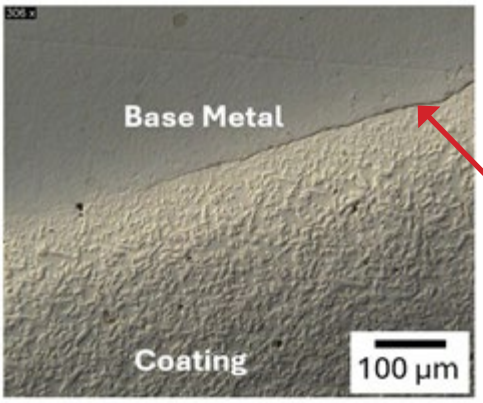
Longevity: The coating's durability means that parts last longer, reducing downtime and increasing operational efficiency.

Reliability: Consistent performance under challenging conditions ensures that operations can proceed smoothly without unexpected failures.

Visual Difference

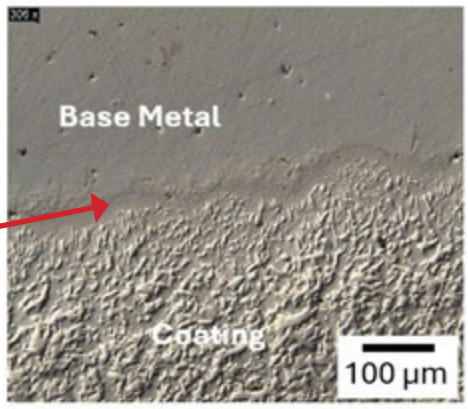
When viewed under the laser scanning microscope, the difference are quite evident.

STANDARD INDUSTRY COATING

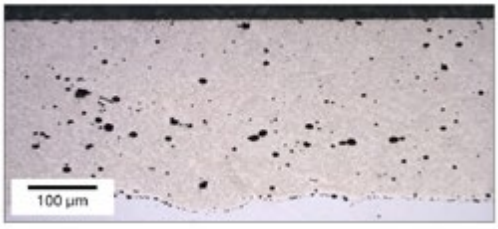


DIFFUSION ZONES

TST-163 COATING



POROSITY



Standard Industry Coating, 3-5% porosity

TST-163 Coating less than 0.5% porosity

Why Fisher Barton

Fisher Barton is a premier manufacturing innovation partner renowned for high-wear components. Our expertise is deeply rooted in the skills of our world-class talent, who are not only masters in material behavior, but also develop and apply proprietary heat treating and thermal spray solutions. This trans-formative approach extends the lifespan of components well beyond our core manufacturing capabilities of stamping, bending, forming, cutting, welding, machining, and casting. Fisher Barton sets itself apart with a rich history of over 50 years of manufacturing expertise. Our commitment to excellence is evident in our nine locations across Wisconsin, Illinois, and Vietnam. We continually innovate wear solutions for a variety of industries from cutting components in the turf, agriculture, recycling, and pulp and paper industries, to bronze gears, pumps, wear parts, close tolerance components, thermal barriers, and antimicrobial solutions serving the energy, food processing, transportation, and medical markets. **Fisher Barton is your partner for the highest quality solutions found — anywhere.**

Fisher Barton

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