



Savroc - Advanced Coating Solutions

TripleHard® - Engine Part Protection

Savroc develops advanced coatings with superior wear resistance, corrosion protection, and sustainability. Our patented TripleHard® coating outperforms Cr⁶⁺, eliminating hazardous chemicals while meeting industry standards.

High hardness | Low friction | Cr³⁺-based | Cr⁶⁺-free | Corrosion resistant

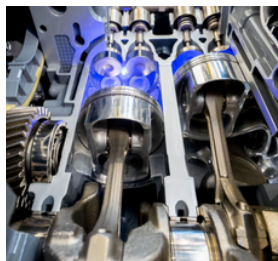
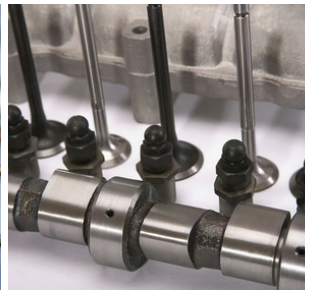
Why Choose TripleHard®

Future-proof Compliance: TripleHard® keeps you REACH compliant without costly re-qualifications.

Outstanding performance: 900-1500 HV hardness, superior corrosion resistance and excellent heat resistance give a clearly longer service life than Cr⁶⁺ coatings.

Lower total cost: Plug-and-play retrofit to existing Cr lines and a longer **bath life** cut chemical spend and downtime.

Validated Technology: Proven in heavy-duty industrial applications with global leaders.



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Schedule a meeting with our experts
or download more materials.

 [Savroc.com](https://www.savroc.com)

 [Savroc-ltd](#)



Increased lifespan of components



Reduced maintenance costs



Environmentally friendly alternative

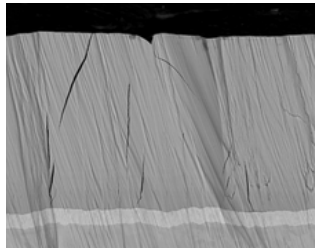
Comparative Coating Technologies Feature

Feature	Cr ⁶⁺ Coating	Nitriding	HVAF	Laser Cladding	TripleHard®
Hardness (HV)	800–1000	1000–1200	1100–1400	900–1300	900–1500
Friction Coefficient	0.2–0.3	0.2–0.3	0.2–0.25	0.2–0.3	0.15–0.2
Cost (€/unit)	Low	Moderate	High	High (energy use)	Low
Environmental Impact	Hazardous (Cr ⁶⁺)	↑ CO ₂ (high temp)	Medium	Very high (energy)	Safe (Cr ³⁺ , no Cr ⁶⁺)
Corrosion Resistance	Good	Moderate	Good	Very high	Excellent
Temperature Resistance (°C)	350–400	500–600	700–800	>800	700
Impact Resistance	Moderate	Poor	Good	High	High
Coating Thickness (µm)	5–200	100–500	60–300	100–800	5–70, in some cases up to 150
Suitability for Sliding Parts	Limited	Limited	Good	Poor	Excellent
Process Complexity	Low	Moderate	High	Very high	Moderate

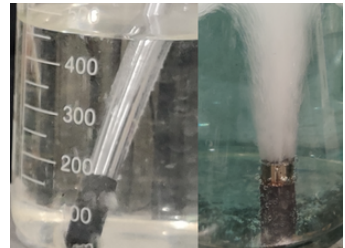
Analytical Evidence



Injector Pins



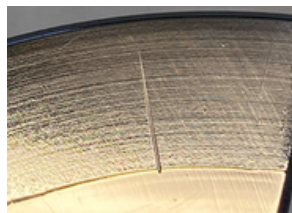
Cross-sectional image of typical TripleHard coating



High Corrosion Resistance

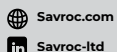


Bend test - No detachment, ensuring strong adhesion



Scratch test - No detachment or cracking, ensuring long-term durability

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