

TripleHard® – Surface Protection for Automotive Components

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

Key Points

- High wear resistance for moving parts
- Cr6+ free and REACH compliant
- Cost-efficient with longer service intervals
- Integrates into existing production lines











Contact us:

Business Development +491627375960 □ alexander.gramm@savroc.com Savroc

+358443071409 iussi.raisa@savroc.com

 iussi.raisa@savroc.com



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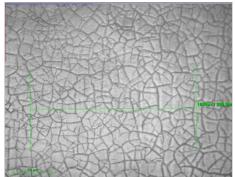




Comparative Coating Technologies Feature

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 (Cr³+, no Cr6+)
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



TripleHard® Coating Crack Network



Brake Cylinder



Automotive brake parts



Coated parts



Cross Section



Automotive brak

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- **+**491627375960
- ≥ alexander.gramm@savroc.com
- Varikkokatu 2, FI-70620 Kuopio
- savroc.com
- **c** +358 443071409
- iussi.raisa@savroc.com

 iussi.raisa@savroc.com
- **♀** Varikkokatu 2, FI-70620 Kuopio
- savroc.com