

## Coating Service Solutions Metco COATINGS

### Systematic coating solutions

Thermal spray coatings for:

- Hydraulic piston rods
- Rams and plungers
- Compressor piston rods

The optimal solution for your application!

Coating solution features:

- High wear resistance tailored for the application
- Chemically resistant for use in the presence of corrosive gases
- Resistant to corrosive environments
- Optimal surface structure with good frictional characteristics between the piston rod and the seal
- Coating ductility reduces the risk of cracking if flexed
- Resistant to stress loading

Compared to traditional hard chromium plating, our coatings are characterized by:

- Significantly higher wear resistance
- Shorter processing times
- Thicker layers can be applied to repair worn components
- No hydrogen embrittlement of high-strength steels
- More eco-friendly which reduces processing costs



## Metco Coatings for rods, pistons, rams and related applications

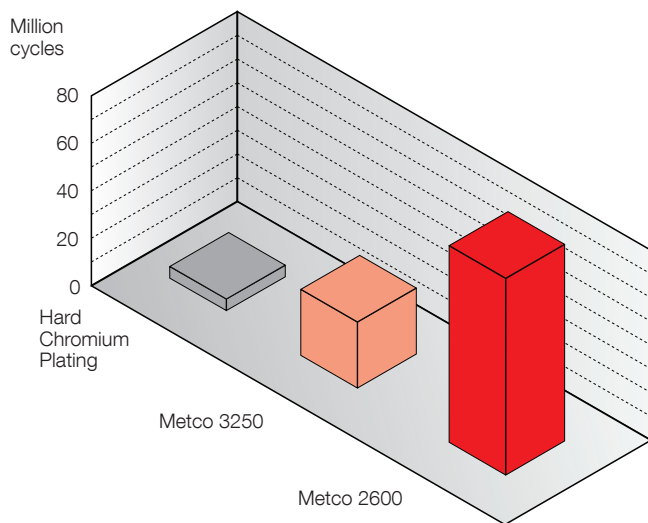
Coating	Coating material	Hardness HV0.3	Wear resistance <sup>a</sup>	Corrosion resistance <sup>a, b</sup>	Comments
Metco 2600	Tungsten Carbide WC/CoCr	1200	5	5	High wear resistance
Metco 2000	Chromium Carbide Cr <sub>3</sub> C <sub>2</sub> /NiCr	950	4	4	Thicker coatings can be applied for repair applications
Metco 2360	Hard, Nickel-Based Alloy	550	3	4 <sup>d</sup>	Similar to hard chromium plating
Metco 3600	Chromium Oxide	1000	5	4 <sup>d</sup>	Wear-resistant ceramic <sup>c</sup>
Metco 3250	Aluminium Oxide	800	3	4 <sup>d</sup>	Cost effective coating <sup>c</sup>
Metco 1000	Chromium Steel	350	2	1	Easily repair previously uncoated components

<sup>a</sup> Qualitative evaluation of the coating characteristics (5 = excellent; 1 = marginal improvement)

<sup>b</sup> Component substrate material and the coating thickness will affect the overall corrosion resistance

<sup>c</sup> Sealant suitability testing required for the specific application

<sup>d</sup> With nickel-chromium intermediate layer



Comparative service life of pistons used in automotive braking systems with various coatings



Coated hydraulic ram operating in a short-cycle press for the production of laminates



Information is subject to change without prior notice.