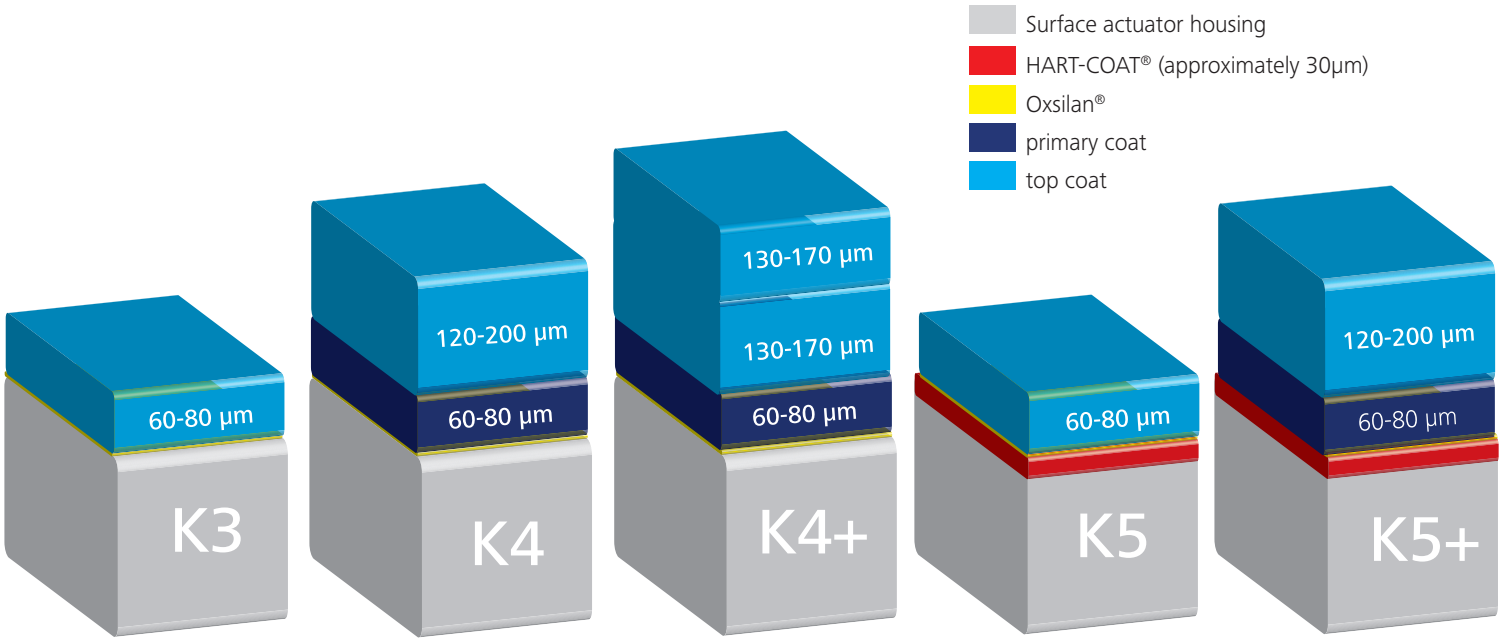
CORROSION PROTECTION FOR ACTUATORS

DREHMO
VALVE ACTUATORS

Corrosion protection – a profitable investment

For use in practically all ambient conditions we offer different versions for DREHMO-actuators corrosion protection.

All techniques include a high efficient pre-treatment consisting of a high-pressure clearing process in combination with an Oxsilan® conversion of all surfaces. For primary and top coat we only use top quality 2-component paints.
Colours are available on request according to the RAL-colour scale. The standard colour is RAL 5015 (sky-blue).



EN ISO 12944-2	LOCATION	DREHMO CLASS		DREHMO PAINT SYSTEM	
C1 (very low)	Indoor, heated	K3		Oxsilan® pretreatment, wet painting: Total thickness: 60-80 µm	
C2 (low)	Unheated buildings				
C3 (medium)	Urban or industrial areas with moderate pollution				
C4 (high)	Industrial and coastal areas, chemical processing plants	K4		Oxsilan® pretreatment, wet painting: Total thickness: 180-280 µm	
C4 (high)	Industrial and coastal areas, chemical processing plants suitable for abrasive atmosphere (sand storm)	K4 +		Oxsilan® pretreatment, wet painting: Total thickness: 320-420 µm	
C5 I (very high,industrial)	Industrial areas with high humidity and aggressive atmospheres	5-15 years K4	>15 years K5	refer to K4	refer to K5
C5 M (very high, marine)	Marine areas with high humidity and aggressive atmospheres	5-15 years K4	>15 years K5	refer to K4	refer to K5
> C5 I/C5 M (extrem high, marine, cooling tower, industial)	Industrial and marine areas with permanent high humidity and aggressive atmospheres	K5		Stainless steel + Hartcoated, parts (HC), Oxsilan® pretreatment, wet painting, Total thickness: 30 µm HC and 60-80 µm paint	
> C5 I/C5 M (extrem high, marine, cooling tower, industial)	Industrial and marine areas with permanent high humidity, aggressive atmospheres and abrasive atmosphere (sand storm)	K5 +		Stainless steel + Hartcoated parts (HC), Oxsilan® pretreatment, wet painting. Total thickness: 30 µm HC and 180-280 µm paint	

CORROSION PROTECTION K3 (C-3)

This corrosion protection is adequate for actuators installed in closed rooms or outside where the atmosphere is not or occasionally polluted. It consists of a single layer of 2 component paint.

CORROSION PROTECTION K4 (C-4)

For operating ranges where the actuators are frequently exposed to aggressive media (such as sulfureous or saline air), we recommend the use of the brilliant corrosion protection K4. By using a double layer we can achieve an increased corrosion protection for longer product life.

CORROSION PROTECTION K5 (C5I/C5M)

This corrosion protection is especially recommended for operating areas where the actuators are permanently exposed to aggressive media (e.g. for use in cooling towers). The use of a conventional surface technology can lead to a sub-surface migration of the coating systems by aggressive substances in the water resulting in the corrosion of the aluminium material.

By using the corrosion protection K5 superb durability will be ensured. The combination of HART-COAT® with additional 2 component painting represents an optimum of corrosions protection.

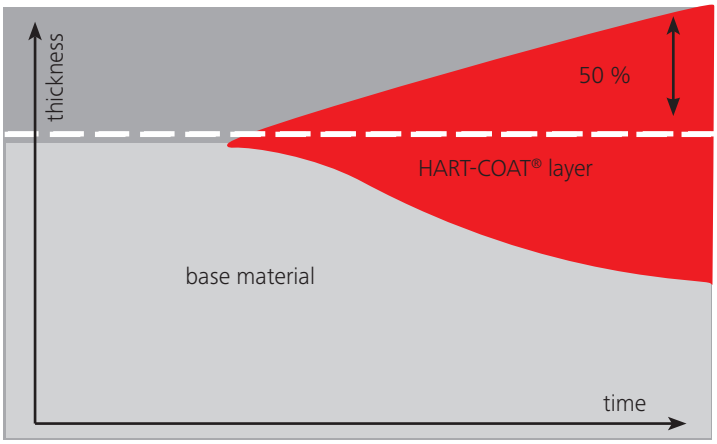
Industrial Coatings for Aluminium Alloys Hard Anodic Oxidation

WHAT IS HART-COAT®?

The HART-COAT® process, also known as HC, is an electrolytic treatment of aluminium substrates during which a hard and thick aluminium oxide layer is formed.
The essential purpose of this surface treatment is to provide protection against wear and corrosion as well as further functional improvements to components from almost all industrial sectors. The process corresponds to ISO 100 74.

HOW ARE HART-COAT® LAYERS BUILT-UP?

HART-COAT® layers are built up by anodic oxidising in a specially formulated, cool, acidic electrolyte. By means of electric current, a protecting aluminium oxide layer is produced on the surface of the workpiece being treated. Compared to conventional anodised layers, HART-COAT® layers are thicker and provide better wear resistance.



This cross-section of a 50 µm thick HART-COAT® layer shows that 50 % of this conversion layer grow into the substrate and 50 % outwards.

Overview Advantages

All advantages in detail
C-Classification according to EN 12944-2

- high wear resistance
- excellent corrosion protection
- excellent hardness
- temperature resistant

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