



DOT AquaCoat A/S  
Technical Specification

## Introduction

DOT AquaCoat is an environmentally-friendly, autodepositing, water-based dip coatings that provide excellent corrosion and can be applied over steel and cast iron substrates. The coating provides excellent corrosion protection, and has good chemical and heat resistance properties. DOT AquaCoat is based on the Chemlok 8310 chemicals from LORD Crop. in USA.

## Technology

The Chemlok technology is a phenolic based resin that is applied on steel substrate. The final finish is a uniform coating with a thickness of 25-35 µm. Colour is black (RAL 9005) with a gloss of 50-60.

The bases of the technology are iron exchange process that takes place when steel is dipped into the Chemlok. There is **no** electric current involved in process. The process takes place in a matter of seconds. The steel is then dried and baked.

Below is listed the different process steps the steel parts go through from start to finish.

### DIFFERENT PROCESS STEPS THE STEEL GO THROUGH

PROCESS	DESCRIPTION	PROCESS TIME
1.	Load/Un-load	
2.	DST 9 clean with ultra sound	7 min.
3.	Rinse water	1. min
4.	DST T3 clean with ultra sound	7. min
5.	Rinse water	1. min
6.	Rinse water	1. min
7.	Rinse water	1. min
8.	Drying	5. min
9.	Chemlok 8310	60 sec.
10.	Drying 100°C	15 min.
11.	Drying 180°C	20 min.

## Dry film thickness

The dry film thickness is measured according to ISO 12944.

The total dry film thickness is 25-35 µm.

## Performance

The coating will be able to pass 750 hours of salt spray test according to ISO 12944.

CORROSION CLASS	REQUIREMENT
C3	480 hours salt spray test according to ISO 12944 and ISO 9227
C4	720 hours salt spray test according to ISO 9227

## Adhesion

Adhesion is tested according to ISO 4624. The requirements is the average adhesion is 5N/mm<sup>2</sup>.

## Friction

Friction between hot dip galvanizing and Chemlok 8310 coated surface is min. 0,12.