

D.O.T.[™]

Organometallic coatings that are resistant to extremely corrosive conditions.

Characteristics:

- Excellent protection against corrosion (can exceed 1,000 hours in salt spray test)
- Control of friction
- No hydrogen embrittlement
- Good resistance in aggressive environments

Materials that can be treated:

All types of metal substrates.

Sample applications:

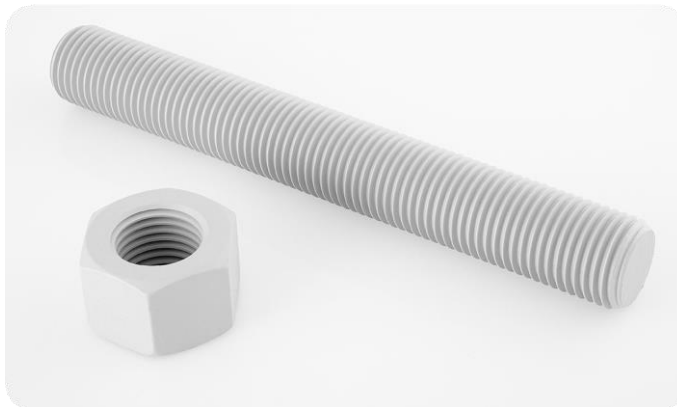
- Screws • Staples • Washers • Circlips • Transmissions • Synchroniser rings • Rollers • Gasket holders • Springs
- Locks • Various axles • Collars

Definition

A family of organometallic protective coatings that meet industrial corrosion resistance requirements.

Sample applications

- Screws
- Nuts and bolts
- Assembly elements
- Automotive parts (transmissions, synchroniser rings, rollers, etc.)
- Various mechanical parts



Properties

Typically, D.O.T. organometallic compounds are used as a substitute for electrolytic or mechanical zinc plating, cadmium plating or chromium-based coatings wherever there are requirements for high corrosion resistance with no alteration of mechanical properties, possibly associated with friction requirements (on parts of any shape).

These compounds form a dry, non-toxic layer on the surface of parts that provides excellent protection against corrosion (up to 1,000 hours in salt spray), with no risk of hydrogen embrittlement.

For the most part these compounds are resistant to mineral oils, hydraulic oils and brake fluids.

Versions adapted for friction (D.O.T 21) can be used, for example, to control tightening torque on screw connections.

Implementation

These coatings are primarily applied by centrifuging. They can also be applied by spraying. In all cases, parts must undergo an appropriate surface preparation which is selected according to the conditions in which the parts will be used.

DESIGNATION	POLYMERISATION TEMPERATURE	MAIN COMPONENT	COLOUR	TEMPERATURE OF USE	STANDARD THICKNESS*
D.O.T. 7	20°C	EPOXY	BLACK	250°C	8 to 50 µm
D.O.T. 18	200°C	ZINC/AL	SILVER-GREY	300°C	8 to 50 µm
D.O.T. 21	230°C	ZINC/AL + SOLID LUBRICANT	SILVER-GREY	200°C	8 to 50 m*

*These are guide values. Thickness is defined relative to the desired functionality

