

I GOT A BLACK FILM ON SOME PARTS AFTER USING EVAPO-RUST®. WHAT IS IT, AND HOW DO I REMOVE IT?

The black film is carbon from the steel. Steel is composed of a combination of carbon and iron. In certain instances, steel will darken in color after rust has been removed from the surface of the metal. This is a natural phenomenon that chemists refer to as "carbon migration". The carbon from the steel moves, or "migrates", to the outer layer of the metal and settles into the pores. The removal of the rust (iron oxide) reduces the proportion of iron to carbon, leaving a higher concentration of carbon on the outer surface. This heavier layer of carbon could cause a darkening of the metal due to the attributes of the carbon. The darkening does not have an adverse affect on the metal. It merely represents the movement of carbon from the interior of the metal to the exterior of the metal.

Since Evapo-Rust® is a highly effective rust remover, it stimulates the carbon migration process. Evapo-Rust® is not alone in creating the carbon migration effect. Other rust removal treatments will also result in carbon migration and a darkening of the metal. The primary difference between Evapo-Rust® and the acid based treatments is that Evapo-Rust® will not harm or weaken the metal. Unlike other treatments, Evapo-Rust® will not darken products made with low carbon steel.

With Evapo-Rust®, sometimes a wiping with a dry cloth or a more rigorous buffing can remove the dark coloring. A quick rinsing of the metal after Evapo-Rust® has been applied may also keep the carbon from settling into the pores of the metal.

There are several things that can be tried to minimize the effects of carbon migration. First, high carbon parts should not be soaked longer than necessary. Once the rust has been removed, the parts should be rinsed and dried. Second, a further dilution of the Evapo-Rust® formula may have a positive affect. The lower concentration of Evapo-Rust® will take longer to remove the rust, but may have less of an effect on causing the carbon migration.