

Permatreat® 1903

Chrome-free pretreatment for aluminium can-end stock and food container



Benefits:

- + Chrome-free process
- + Performance equivalent to chrome-based applications
- + Successful with a broad range of lacquers
- + Can be applied by spray, immersion or roll-coat
- + Fits into existing conventional systems with only minor system adjustments
- + Approved by all major can manufacturers
- + Approved by Nehring Institute (leaching test)

Applications:

- + Can-end stock
- + Food container

Permatreat® 1903 was one of the first chrome-free pretreatments for can-end stock to be applied in the marketplace. Today with many years of practical operating experience, it is being used to manufacture a significant proportion of the total global aluminium can-end stock.

The performance of the environmentally-friendly process is similar or even better than chrome-phosphate. These excellent results have repeatedly been confirmed across a wide variety of lacquers in many detailed studies carried out by our customers.

Permatreat® 1903

For many decades, chrome phosphate processes have been the standard for the aluminium can-end stock pretreatment. This is not surprising, as they give excellent performance and are extremely forgiving. However more recently, chrome-based pretreatment processes have come under pressure for environmental, health and safety reasons. Chrome products are classified as toxic and hazardous. The processes are difficult to handle and may create effluent disposal issues.

Focused on innovative and environmental-friendly processes, Chemetall has developed Permatreat® 1903 – one of the first chrome-free pretreatment processes for can-end stocks and food container applications. The new process demonstrates outstanding performance with regard to adhesion and corrosion protection and shows similar or even better quality results than the conventional chrome phosphate.

Nowadays, users of the chrome-free technology include all the world's biggest names in the industry. All major can manufacturers have globally approved Permatreat® 1903, and also key lacquer manufacturers support the innovative process.

Permatreat® 1903 can be used either as a no-rinse or conventional pretreatment and gives equally good results in both. The process can be applied to almost any existing line with only minor system modifications. In the conventional process, the only addition is a simple sealer step using an organic polymer. This „easy to operate“ pretreatment has a very simple test method to determine coating weight and can be readily controlled automatically using pH-value.

Permatreat® 1903 can be used with a broad range of both solvent-based and water-based lacquers in standard testing, including feathering, dowfax, MSE and retort.