



## Phosphates and Phosphoric Acid

**Polycorp Protective Linings are used to protect rail and truck tanks, storage vessels, process equipment, and pipes from corrosive and abrasive materials. Our customers benefit from our extensive product catalogue, superior technical support, and decades of experience in the rubber lining industry.**

### THE CHALLENGE

The processing of phosphates to manufacture phosphoric acid and fertilizer creates a unique combination of corrosive and abrasive conditions. In addition, temperatures in excess of 212°F/100°C are common, increasing the degree of attack on assets.

Processing equipment, piping and storage tanks must be protected to maximize life. Typical equipment found in these operations include:

- Evaporators
- Barometric Condensers
- DAP Units and Scrubbers
- Thickeners and Clarifiers
- Pipes and Pumps
- Storage Tanks
- Rail Cars and Transportation Vessels

## THE SOLUTION

Polycorp has a wide variety of products specifically designed for the rigorous conditions found in phosphate and phosphoric acid applications. Our solutions include chlorobutyl, natural rubber, and some of our exclusive Triflex™ linings. Some can withstand continuous operating temperatures of 240°F/116°C and many are FDA compliant for food related usage.

**Chlorobutyl** linings offer excellent resistance to acids and caustic solutions up to 240°F/116°C. They are recommended for applications that require ozone, sunlight and aging resistance. These materials are unaffected by cold weather or rapid temperature changes and are strongly recommended for phosphoric acid and sodium hypochlorite services.

**Triflex™** designed linings consist of 3 distinct layers of materials in a soft-hard-soft format. These materials offer the abrasion resistance of a natural rubber top layer with a low permeation, and a hard rubber middle layer. The base is another soft layer to bond to the substrate, providing flexibility in application and service.



### Linings for Phosphoric Acid

- **1054** is a white, soft, 40A durometer blended chlorobutyl lining with a soft natural rubber tie gum. It is FDA compliant and has good general chemical resistance in temperatures up to 200°F/93°C.
- **1055** is a black, 55A durometer blended chlorobutyl lining with soft natural rubber tie gum. It is FDA compliant and has good general chemical resistance at elevated temperatures.
- **1056HT** is a black, 55A durometer blended chlorobutyl with tan natural rubber tie gum. Excellent chemical resistance properties at continuous operating temperatures up to 220°F/104°C.
- **1024** is a black, 50A durometer pure chlorobutyl lining with natural rubber tie gum. Excellent chemical resistance at operating temperatures up to 240°F/116°C.
- **1020HT** is a tan, 50A durometer high temperature Triflex™ with excellent chemical resistance in high temperature applications. Designed specifically for phosphoric acid service.
- **1008** is a black, 60A durometer Triflex™ for moderate temperature environments. FDA compliant.