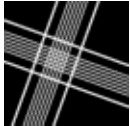




### Corrosion protection (with oiling)



### Wear protection



### Varnish pre-treatment

A phosphate coating itself, i.e. without after-treatment, will provide adequate rust protection only in rare cases. It rather serves as an adhesive surface for anti-corrosion agents by which their performance will be considerably increased. For example, the phosphate film will ensure that rust protecting oil can no longer be removed by the handling of the part and will not even wash off if exposed to the weather. Organic coatings such as varnishes are rendered more resistant to chipping under impact or bending stress. The rust in cases of mechanical damage will remain tightly localized because the phosphate film stops it from getting under the varnish. The improved adhesion ensured by a phosphate layer also leads to similar effects in gluing or vulcanizing processes.

The type of phosphate coat is selected with respect to the final function of the coating system: either fine or coarse, thin or thick, dark or light.

If the phosphating product used mainly contains zinc the colour of the coating will range from light to dark grey, depending on its composition. The darkest coating by far is obtained with manganese-based phosphating. Manganese phosphate coatings have similar properties, but additionally also a pronounced beneficial effect on running-in processes involving a sliding friction of surfaces. This specific attribute of improving the gliding behaviour and/or reducing wear, e.g. for gears, particularly distinguishes manganese phosphate coatings.

	Corrosion protection for steel	Wear protection for steel	Varnish pre-treatment for steel
■ = standard □ = alternative ◆ = if required			
<b>ZWEZ-Clean</b> Cleaning / degreasing	■	■	■
<b>ZWEZ-Acid</b> Pickling / de-rusting	◆	◆	◆
<b>ZWEZ-Cond ZN</b> <b>ZWEZ-Cond MN</b> Activating	◆	■	◆
<b>ZWEZ-Coat</b> Alkali phosphate			□
Zinc phosphate, thin	□		□
Zinc phosphate, medium to thick	■		
Manganese phosphate	□	■	
<b>ZWEZ-Rinse</b> <b>ZWEZ-Pass</b> Neutralizing / passivating	■	■	■
<b>ZWEZ-Oil E</b> (Emulsion)	□	□	
<b>ZWEZ-Oil D</b> (Dewatering)	□	□	