

# Surface treatments

TYPE OF SURFACE TREATMENT	WHITE CORROSION RESISTANCE*** [minimum hours]	RED CORROSION RESISTANCE*** [minimum hours]	ASPECT
*White electrolytical zinc plating 2-3 my Cr VI-free	6	12	Brilliant gray with blue-coloured reflexes
*White electrolytical zinc plating 6-8 my Cr VI-free	24	72	
*White electrolytical zinc plating 11-13 my Cr VI-free	24	96	
*Yellow electrolytical zinc plating 3-4 my Cr VI-free	24	48	Iridescent yellow with red-coloured reflexes
*Yellow electrolytical zinc plating 6-8 my Cr VI-free	24	72	
* Yellow electrolytical zinc plating 11-13 my Cr VI-free	24	96	
White mechanical zinc plating 11-13 my Cr VI-free	72	168	Gray with weak blue-coloured reflexes
White mechanical zinc plating 20-25 my Cr VI-free	72	216	
White mechanical zinc plating 40-42 my Cr VI-free	72	288	
Yellow mechanical zinc plating 11-13 my Cr VI-free	72	168	Iridescent yellow
Yellow mechanical zinc plating 20-25 my Cr VI-free	72	216	
Yellow mechanical zinc plating 40-42 my Cr VI-free	72	288	
**Geomet® 321 degree A 5-7 my Cr VI-free	-	600	Gray with satin surface
**Geomet® 321 degree B 8-10 my Cr VI-free	-	1000	
**Geomet® 500 degree A 5-7 my Cr VI-free	-	600	
**Geomet® 500 degree B 8-10 my Cr VI-free	-	1000	
Phosphating zinc-iron 5-8 my	-	16	Matt black
**Hot dip galvanising 50-60 my	-	-	Matt gray
Zinc-nickel 8 my + sealing	200	600	Matt gray
Black zinc-nickel 8 my + sealing	120	720	Matt black
**Delta Protekt® KL100	-	720	Gray with satin surface
**Delta Protekt® KL105	-	720	Gray with satin surface
**Delta Protekt® KL100 + VH301 GZ	-	720	Gray with satin surface
**Delta Protekt® KL100 + VH302 GZ	-	720	Gray with satin surface
**Delta Protekt® KL100 + VH315 GZ	-	720	Gray with satin surface
Nickel-Plating	-	-	Brilliant gray

\* Dehydrogenation. During the electrolytical galvanization, the pieces absorb hydrogen, consequently cracking the material. In order to get rid of this embrittlement, Growermetal carries out a dehydrogenation treatment on all the items manufactured with spring steel. Such treatment is duly made within two hours after the zinc covering, before the chromic conversion. Furthermore this treatment guarantees a permanence of at least nine hours by a temperature of 190-200 degrees.

\*\* Treatment not recommended for products with internal diameter inferior to 6 mm. The pieces of small dimensions usually use to stick fast together.

\*\*\* Salt spray test according to ISO 9227 standard.