

STAINLESS STEEL AISI 316L

The stainless steel AISI 316L is an austenitic alloy. It is distinguished from others inoxidizable steels by the high percentage of molybdenum which gives it a special resistance to pitting corrosion and stress corrosion. In this kind stainless steel the nickel's presence is increased in order to guarantee stability. Further, the "L" stays for low carbon and in fact the quantity is less or equal to 0,03%. This feature prolongs the chrome carbides precipitation's time and avoids the risk of intergranular corrosion during the welding process.

Chemical compositions of AISI stainless steel grades

Material - Stainless steel	C %C	r %N	i %M	o %
AISI 430 (1.4016)0	,12 max	14.0-18.0/		/
AISI 304 (1.4301)0	,08 max	18.0-20.08	.0-10.5/	
AISI 316 (1.4401)0	,08 max	16.0-18.0	10.0-14.02	.00-3.00
AISI 316L (1.4404)*0	,03 max	16.0-18.0	10.0-14.02	.00-3.00

*Standard Pba

Estimated pit corrosion time – time to penetrate 1 mm (years) by steel type c

Location - Stainless Steel	Marine	Semi-industrial	Rural
Stainless steel AISI 430 (1.4016)N	/A	85	250
Stainless steel AISI 304 (1.4301)	145	135	770
Stainless steel AISI 316 (1.4401)	260	525	1200

Source: The British Stainless Steel Association [BSSA]

MATERIAL CERTIFICATION

The AISI 316L stainless steel (1) steel used by pba, meets the requirements of UNI EN 1670, the ultimate quality standard for ensuring resistance to corrosion.

Pba has been awarded a certificate for successfully salt spray testing the stainless steel in accordance with UNI ISO 9227.

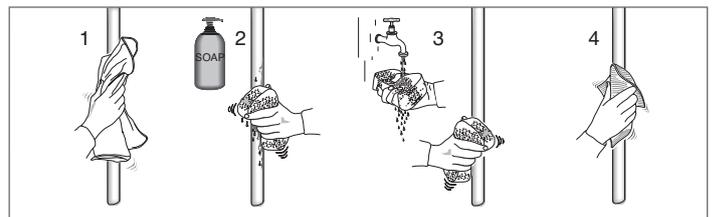
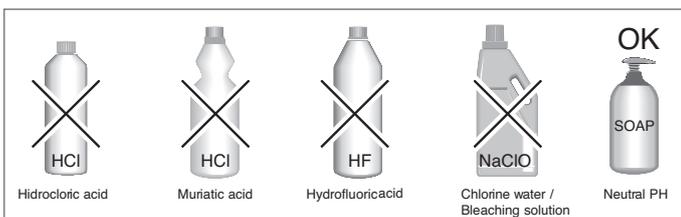
(1) X2CrNiMo 17-12-2 as per EN 10088-3.

PVD

PVD - Physical Vapor Deposition - is a coating technology that allows depositing of a thin film onto many different kinds of base materials. During the process, different metals which can be deposited - like titanium, zirconium, and chrome - evaporate in a vacuum atmosphere. Due to kinetic energy and a potential difference between the products, ions move on the surface where they condense creating the desired coating.

The metal film is obtained by a complete physical process and therefore possesses higher technical characteristics than any other chemical or electro-chemical process. PVD coating is particularly recommended for all those innovative quality products which require high chemical and technical features (resistance to abrasion, scratches, and corrosion) and at the same time offers a wide choice of chromatic colors.

MAINTENANCE



MATERIALS AND FINISHING

MATERIAL	FINISH		.XX	* indicative colors	
STAINLESS STEEL AISI 316L	Standard: SATIN		.44		
	Upon Request: BRIGHT		.43		
	Upon Request: PVD on selected items (*)	Black Satin Colours on demand (minimum lot to be agreed)	.83		
	Upon Request: POWDER COATED	Black Ral 9005 (To match with Pba Black Aluminium)	.40		
		White Ral 9010	.31		
		Grey	.32		
		Champagne	.38		
		Bronze (To match with Pba Bronze Aluminium)	.39		
		Silver	.41		
		COLOURS ON REQUEST TO MATCH ANY RAL #	.99		
		Screws, grub screws and plastic parts non powdercoated. Available on request depending on quantities.			
	STAINLESS STEEL AISI 316L + WOOD	Standard: SATIN + WOOD	Wenge	.46	
			Ash	.47	
			Mahogany	.48	
			Bleached white oak	.52	
Upon Request: BRIGHT+ WOOD		Wenge	.49		
		Ash	.50		
		Mahogany	.51		
		Bleached white oak	.53		
Upon Request: POWDER COATED		Black Ral 9005 (To match with Pba Black Aluminium)	.40		
		White Ral 9010	.31		
		Grey	.32		
		Champagne	.38		
		Bronze (To match with Pba Bronze Aluminium)	.39		
		Silver	.41		
		White/Bleached White Oak	.31		
	Black/Wenge	.40			
	COLOURS ON REQUEST TO MATCH ANY RAL #	.99			
	Screws, grub screws and plastic parts non powdercoated. Available on request depending on quantities.				
STAINLESS STEEL AISI 316L + LEATHER	Standard: SATIN + LEATHER	Black Plain	.4A		
		Black Hammered	.4G		
		White Plain	.4J		
		Grey Plain	.4I		
		Brown Plain	.4C		
	Upon Request: BRIGHT + LEATHER	Black Plain	.3A		
		Black Hammered	.3G		
		White Plain	.3J		
		Grey Plain	.3I		
		Brown Plain	.3C		
	Upon Request: POWDER COATED	Black Ral 9005 (To match with Pba Black Aluminium)	.40		
		White Ral 9010	.31		
		Grey	.32		
		Champagne	.38		
		Bronze (To match with Pba Bronze Aluminium)	.39		
	Silver	.41			
	White/Leather White	.31			
	Black/Leather Black	.40			
	COLOURS ON REQUEST TO MATCH ANY RAL #	.99			
	Screws, grub screws and plastic parts non powdercoated. Available on request depending on quantities.				