

## Industeel VIRGO 17.4PH 17Cr-4Ni-3Cu Precipitation Hardening Martensitic Stainless Steel (496°C - 4 hours + air cooled)

Category : Metal , Ferrous Metal , Martensitic , Stainless Steel , Precipitation Hardening Stainless , T S10000 Series Stainless Steel

### Material Notes:

Description: Alloy VIRGO 17.4 PH is a precipitation hardening martensitic stainless steel with Cu and Nb/Cb additions. The grade combines high strength, hardness (up to 300°C / 572°F) and corrosion resistance. Mechanical properties can be optimized with heat treatment. Very high yield strength up to 1100-1300 MPa can be achieved. The grade should not be used at temperatures above 300°C (572°F) or at very low temperatures. It has adequate resistance to atmospheric corrosion or in diluted acids or salts where its corrosion resistance is equivalent to CLC 18.9 (304) or SOLEIL B4 (430). If there are potential risks of stress corrosion cracking, higher aging temperatures must be selected over 550°C (1022°F), preferably 590°C(1094°F). The main applications are :mechanical componentsaerospaceoffshore industryfood industryInformation provided by manufacturer.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Industeel-VIRGO-174PH-17Cr-4Ni-3Cu-Precipitation-Hardening-Martensitic-Stainless-Steel-496C-4-hours-air-cooled.php](http://www.lookpolymers.com/polymer_Industeel-VIRGO-174PH-17Cr-4Ni-3Cu-Precipitation-Hardening-Martensitic-Stainless-Steel-496C-4-hours-air-cooled.php)

Physical Properties	Metric	English	Comments
Density	7.80 g/cc	0.282 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	375	375	Typical
Hardness, Rockwell C	38	38	Typical
Tensile Strength, Ultimate	>= 1170 MPa	>= 170000 psi	Minimum Guaranteed
	1310 MPa	190000 psi	Typical
Tensile Strength, Yield	>= 1070 MPa	>= 155000 psi	
	@Strain 0.200 %	@Strain 0.200 %	
	1207 MPa	175100 psi	Typical
	@Strain 0.200 %	@Strain 0.200 %	
Elongation at Break	>= 8.0 %	>= 8.0 %	
	14 %	14 %	Typical

Component Elements Properties	Metric	English	Comments
Carbon, C	0.040 %	0.040 %	
Chromium, Cr	16.5 %	16.5 %	
Copper, Cu	3.3 %	3.3 %	

Component Elements Properties	Metric	English	Comments
Manganese, Mn	0.70 %	0.70 %	
Nickel, Ni	4.5 %	4.5 %	
Niobium, Nb (Columbium, Cb)	0.30 %	0.30 %	

## Contact Songhan Plastic Technology Co.,Ltd.

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