

## AK Steel 15-5 PH® Precipitation Hardening Stainless Steel, Condition H 1025

Category: Metal, Ferrous Metal, Martensitic, Stainless Steel, Precipitation Hardening Stainless

## **Material Notes:**

AK Steel 15-5 PH® provides high strength, good corrosion resistance, good mechanical properties at temperatures up to 600°F (316°C), and good toughness in both base metal and welds. Short-time, low-temperature heat treatments minimize distortion and scaling. AK Steel 15-5 PH® is the ferrite-free version of AK Steel 17-4 PH® Stainless Steel. Both alloys are widely used in the aerospace, chemical, petrochemical, food processing, paper and general metalworking industries. The material supplied from the mill is in Condition A. After fabrication eight standard heat treatments have been developed to provide a wide range of properties. Information provided by AK Steel

Order this product through the following link:

http://www.lookpolymers.com/polymer\_AK-Steel-15-5-PH-Precipitation-Hardening-Stainless-Steel-Condition-H-1025.php

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

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	39	39	Transverse
	40	40	Longitudinal
Tensile Strength, Ultimate	1200 MPa	174000 psi	Longitudinal
	1204 MPa	174600 psi	Transverse
Tensile Strength, Yield	1176 MPa	170600 psi	Longitudinal
	@Strain 0.200 %	@Strain 0.200 %	
	1176 MPa	170600 psi	Transverse
	@Strain 0.200 %	@Strain 0.200 %	Transverse
Elongation at Break	9.3 %	9.3 %	in 2 inches, Transverse
	12.2 %	12.2 %	in 2 inches, Longitudinal

Component Elements Properties	Metric	English	Comments
Carbon, C	<= 0.070 %	<= 0.070 %	
Chromium, Cr	14 - 15.5 %	14 - 15.5 %	
Copper, Cu	2.5 - 4.5 %	2.5 - 4.5 %	
Iron, Fe	71.91 - 79.85 %	71.91 - 79.85 %	As Remainder
Manganese, Mn	<= 1.0 %	<= 1.0 %	



Component Elements Properties	0.15 - 0.45 % Metric	n 15 - 0.45 % English	Comments	
Nickel, Ni	3.5 - 5.5 %	3.5 - 5.5 %		
Phosphorous, P	<= 0.040 %	<= 0.040 %		
Silicon, Si	<= 1.0 %	<= 1.0 %		
Sulfur, S	<= 0.030 %	<= 0.030 %		

## **Contact Songhan Plastic Technology Co.,Ltd.**

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