



800-722-5029  
www.nks.com

# 441 Stainless Steel

## DESCRIPTION

Type 441 Stainless Steel is a ferritic stainless steel which provides good high-temperature strength (exceeding that of Types 409 and 439 Stainless Steels) plus good corrosion resistance in many exhaust gas environments (equivalent to Type 439 and 18 Cr-Cb Stainless Steels). Ferritic steels are not inherently strong at elevated temperatures, but columbium additions coupled with appropriate solution annealing markedly improve long-time creep rupture strength. Type 441 is dual stabilized with niobium and titanium to provide good weld ductility and resistance to intergranular corrosion in the weld heat affected zone.

## PRODUCT FORMS

Sheet, Strip

## SPECIFICATIONS

ASTM A240 (S43940) and EN 10088-2 (1.4509)

## TYPICAL APPLICATIONS

Automotive exhaust tube and components



800-722-5029  
www.nks.com

# 441 Stainless Steel

## CHEMICAL COMPOSITION

<b>Element</b>	<b>UNS 43940</b>	<b>EN 1.4509</b>
Carbon	0.030 max.	0.030 max.
Manganese	1.00 max.	1.00 max.
Sulfur	0.015 max.	0.015 max.
Phosphorus	0.040 max.	0.040 max.
Silicon	1.00 max.	1.00 max
Chromium	17.5 - 18.5	17.5 - 18.5
Titanium	0.10 - 0.60	0.10 - 0.60
Nitrogen		0.045 max.
Niobium	0.30+(9xC) min.	0.30+(9xC) min - 1.00 max.

## MECHANICAL PROPERTIES: (PER ASTM A240, A666)

<b>Type</b>	<b>Yield Strength 0.2% offset (KSI)</b>	<b>Tensile Strength (KSI)</b>	<b>% Elongation (2" Gauge Length)</b>
UNS S43940	36 min.	62 min.	18 min.
EN 1.4509	36 min.	62-91 min..	18 min.