



# HSM Wire International, Inc

Ph: 330-244-8501 Fax: 330-244-8561

www.hsmwire.com



## Alloy 276 - Nickel C-Family Alloy

**Description:** Alloy 276 is a well established C-Family Alloy and has excellent resistance to pitting, crevice and stress corrosion cracking, and good resistance to wet chlorine.

**Applications:** Digesters and bleach plants in paper industry, for components exposed to sour gas, evaporators, heat exchangers, filters and mixers used in sulphic acid environments.

<b>Nominal Composition:</b>	<b>C</b>	<b>Mn</b>	<b>Si</b>	<b>P</b>	<b>S</b>	<b>Cr</b>	<b>Ni</b>
	0.010	1.0	0.08	0.015 Max	0.010 Max	14.5-16.5	Balance
	<b>V</b>	<b>Fe</b>	<b>Mo</b>	<b>Co</b>			
	0.35 Max	4.0-7.0	15.0-17.0	2.5			

## **Physical and Mechanical Properties**

	Metric Units
Density	8.9 gm/cu cm
Specific Heat	407 J/kg K
Electrical Resistivity	125 micro ohms cm
Melting Range	1325 - 1370°C
Thermal Expansion (10 <sup>-6</sup> K)	12.8 (20 - 300°C)
<b>Yield Strength</b>	<b>Rp 0.2%</b>
20°C Temp	280N/mm sq
100°C Temp	270N/mm sq
200°C Temp	260N/mm sq
300°C Temp	250N/mm sq
400°C Temp	235N/mm sq
<b>Tensile Strength</b>	<b>RM</b>
	700N/mm sq
<b>Elongation</b>	<b>A5 min</b>
	40%

\*To be used as a guideline only.

Copyright ©2013 HSM Wire International

R1.06.13.2013