

Some numbers on Fort Wayne Metals Wire: 10/05

The wire diameter is 4 mils (100 micron) and 6 mils (150 micron).
The wire is made of 304V stainless steel
(V means vacuum remelted)..the manufacturer's web page for the
material is:

http://www.fwmetals.com/resources_specsheets/304v.html;

the density is 7.9 gms/cc

the young's modulus is 28.5 million (PSI)

the tensile strength to yield is 300 thousand (PSI)

the yield load (4 mils) is 3.50 lbs;

the yield load (6 mils) is 8.65 lbs;

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Some numbers of nickel content and thermal contraction..

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From rlschmitt@fnal.gov Fri Aug 19 11:38:08 2005

Date: Fri, 19 Aug 2005 11:39:00 -0500

From: Richard Schmitt <rlschmitt@fnal.gov>

To: Stephen Pordes <stephen@fnal.gov>

Subject: Re: Some useful Thermal Expansion Integrals

Nickel Content of different alloys:

>ASTM353 9% nickel

> 304 11% nickel

> 310 21.6% nickel

> 316 10 to 14% nickel

> 347 11.3% nickel

For several stainless steel alloys, from 293K to 90K, total -dL/L is

>ASTM353 1.83e-3

> 304 2.71e-3

> 310 2.46e-3

> 316 2.69e-3

> 347 2.62e-3

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