

# ASTM A999 - Synthetic Test Specification

Scope: This specification covers seamless and welded synthetic test materials.

**Table 1: Mechanical Properties**

Grade	Yield Strength (ksi)	Tensile Strength (ksi)	Elongation (%)
A	50	75	30
B	65	95	25
C	80	110	20

**Table 2: Chemical Composition**

Carbon (C): 0.03% max  
Chromium (Cr): 22.0-24.0%  
Nickel (Ni): 4.5-6.5%  
Molybdenum (Mo): 3.0-3.5%  
Nitrogen (N): 0.14-0.20%

**UNS Designation:**

Grade A: UNS S99901  
Grade B: UNS S99902  
Grade C: UNS S99903