

NILO® 52



Key Features

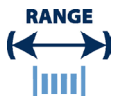
Designed for use with a variety of soft glasses

Almost constant coefficient of thermal expansion up to approx. 565 °C (1050 °F)

IMPORTANT

We will manufacture to your required mechanical properties.

key advantages to you, our customer



0.025mm to 21mm
(.001" to .827")



Order 3m to 3t
(10 ft to 6000 Lbs)



Delivery:
within 3 weeks



Wire to your spec



E.M.S available



Technical support

NILO® 52 available in:-

- Round wire
- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

Packaging

- Coils
- Spools
- Bars or lengths



Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM F30	Designed for use with a variety of soft glasses Almost constant coefficient of thermal expansion up to approx. 565 °C (1050 °F)	Various glass to metal sealing applications with soft glass and ceramics
Ni	50.50 nominal				
Fe	BAL		Designations		
Mn	-	0.60	W.Nr. 2.4478 UNS N14052 AWS 093		
Si	-	0.30			
C	-	0.05			
Cr	-	0.25			
P	-	0.025			
S	-	0.03			
Al	-	0.10			

Density	8.3 g/cm ³	0.300 lb/in ³
Melting Point	1450 °C	2640 °F
Inflection Point	500 °C	930 °F
Thermal Conductivity	17 W/m·°C	118 btu·in/ft ² ·h °F
Coefficient of Expansion	10.3 µm/m °C (20 – 100 °C)	5.7 x 10 ⁻⁶ in/in °F (70 – 212 °F)

Heat Treatment of Finished Parts

*The Nilo alloys are usually supplied and used in the annealed condition (residual cold work distorts the coefficients of thermal expansion).
Annealing times may vary due to section thickness.*

Type	Temperature		Time (Hr)	Cooling
	°C	°F		
Anneal	850 – 1000	1560 – 1830	0.5	Air or water

Properties

Condition	Approx. tensile strength		Approx. operating temperature	
	N/mm ²	ksi	°C	°F
Annealed	<600	<87	up to +450	up to +840
Hard Drawn	700 – 900	102 – 131	up to +450	up to +840

The above tensile strength ranges are typical. If you require different please ask.