

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

HEATSEAL 29 available in:-

We will manufacture to your required mechanical properties.

Round wire

IMPORTANT

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

Packaging

- Coils
- Spools
- Bars or lengths



HEATSEAL 29



Chemical Composition			Designations	Key Features	Typical Applications
Element	Min %	Max %	AWS 094	Having low expansion as it's temperature	Heat sealing (plastic bag
Fe	Fe 53.00 nominal			increases makes it an ideal heating element wire for heat sealing (plastic bag welding) over a long straight length	welding) long lengths of plastic bags where low expansion of the wire is important to ensure straightness of the weld
Ni	Ni 29.00 nominal				
Со	Co 17.00 nominal				
Mn	-	0.50			Examples include heat sealing
Si	-	0.20			plastic bags for bed mattress's
С	-	0.04			
Al	-	0.10			
Mg	-	0.10			
Zr	-	0.10			
Ti	-	0.10			
Cu	-	0.20			
Cr	-	0.20			
Мо	-	0.20			

Density	8.16 g/cm ³	0.295 lb/in ³
Melting Point	1450 ℃	2640 °F
Inflection Point	450 °C	840 °F
Thermal Conductivity	16.7 W/m• °C	116 btu•in/ft²•h °F
Coefficient of Expansion	6.0 μm/m °C (20 – 100 °C) 4.6 – 5.2 μm/m °C (20 – 400 °C)	3.3 x 10 ⁻⁶ in/in °F (70 – 212 °F) 2.6 – 2.9 x 10 ⁻⁶ in/in °F (70 – 752 °F)

Heat Treatment of Finished Parts

The Heatseal 29 alloy is 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. Oxidizing time and temperature to be selected depending on required oxide thickness.

	Toma	Temperature		Time o (Ulv)	Clin-
	Type	°C	°F	Time (Hr)	Cooling
	Anneal	850 – 1000	1560 – 1830	0.5	Air or water
To prepare for glass to metal sealing	Decarburization	900 – 1050	1650 – 1920	1	Air or water
If a metal oxide interface is required (time and temperature depend on required oxide thickness)	Oxidize	600 – 1000	1110 – 1830	1	Air

Properties						
Condition	Approx. tensile strength		Approx. operating temperature			
Condition	N/mm²	ksi	°C	°F		
Annealed	<550	<80	up to +400	up to +750		
Hard Drawn	700 – 900	102 – 131	up to +400	up to +750		

 $\label{thm:continuous} The above tensile strength \ ranges \ are \ typical. \ If you \ require \ different \ please \ ask.$





